AMERICAN ARTISAN and Hardware Record

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EXTRA AGATE L & G Mfg. Co. NICKEL-STEEL-WARE

"The Standard for over forty years"

"AGATE" NICKEL-STEEL WARE

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Let us tell you more about it—Write us today.

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LALANCE & GROSJEAN MFG. CO.

1900 South Clark Street, CHICAGO, ILLINOIS

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APART FROM ANY question of international politics, there is no denying the fact that commerce unites all countries. The maker of oil stoves who sells a carload of his product in Mexico acquires an interest to that extent in the economic conditions of Mexico. The ability of the people there to buy oil stoves depends upon their income. Their income hinges upon the orderly development of agriculture and industry. These, in turn, are affected by the degree in which peace and justice are maintained throughout the country. If the making of oil stoves is halted by labor disturbances, the customers in Mexico are deprived of a needed commodity. Hence, they are made to suffer by the action of workmen in another land. The Mexican dealer loses profits thereby. His prosperity is lessened in proportion. This circle of influences is continuous. What is true of oil stoves in Mexico may be predicated of hardware and textiles, of food and machinery—indeed, of all commodities—throughout the world.

Bad Effect of Strikes.

Pages might be filled with an elaboration of the vast network of interdependence of labor and capital in forwarding the commerce of modern civilization. So intimate are the relations of business everywhere that an injury to one is an injury to all in the long run. The bad effect of strikes does not end with the damage done to a particular industry. Especially, in the present abnormal conditions, cessation or lessening of production harms everyone, directly or indirectly—the babe in the cradle no less than the worker in the shop.

That impaired or delayed production in the United States will tend to bring about suffering in Europe on a scale greater than that which prevailed during the war is the statement made in the current issue of "American Goods and Foreign Markets," the semi-monthly publication devoted to foreign trade, issued by the Guaranty Trust Company of New York. In the introduction to the customary survey of economic and commercial conditions in the various parts of the world the review gives an account of means which have been taken to rally public support to the movement to supply adequate financial assistance in the rehabilitation of Europe.

"The exchange situation," says the publication, "and the tendency of export trade to diminish have made the acquisition of all possible knowledge a very real necessity to all business men, and have doubtless brought the problem to a head much quicker than would have been the case had this pressure not developed. The whole matter of the foreign trade policy of the country has become a vital issue, and is today recognized as such by business men in all parts of the country. With an aroused public opinion to back them up, the task of financiers who are seeking a speedy solution will become easier and more certain."

After a summary of the evidences that public opinion has recognized the situation, the review continues:

"It thus becomes apparent that adequate and authoritative information in regard to the whole foreign trade question is being rapidly disseminated, and that the relationships with Europe are being built up to a point where the necessary action may be taken. The credit basis once established, the exchange situation and the other kindred problems could be depended upon to right themselves, always provided that production in the United States were kept at a point to make foreign sales possible. Europe's need is so great that it is hardly conceivable that American industry and American labor should decide at this all-important moment to retard the happy outcome and undo the work of rehabilitation that has already been accomplished.

"It is no exaggeration to say that impaired or delayed production in the United States, whatever its effect upon our own population, can not fail to bring about suffering in Europe on a scale greater than that which prevailed during the war, when the United States could be counted upon to stave off actual starvation.

"The long processes of the peace negotiations and the inevitable psychological reactions after the war have kept this dependence in being, and it is just this dependence which has made it possible to continue the operation of American industry upon the present full-time scale. It would seem that part of wisdom among all classes and divisions of Americans to recognize it as the supreme factor in the present situation, before which selfish interests must give way. American production should be kept at its peak at the cost of any reasonable concession."

BY NO TWIST of words can the Absentee Voting Bill be construed as a partisan measure. Its enactment by the various state legislatures is certain to remedy a grave injustice. The State of New York is considering the adoption of the Bill in the form of a constitutional measure to be voted on in November. The National Council of Traveling Salesmen's

Justice to Traveling Salesmen.

Associations is conducting a vigorous campaign for the passage of the amendment. Donations placed at the disposal of "The National Council" are being used in a broad educational effort, and such mediums as newspapers and magazines, business journals and moving picture houses are employed in spreading the doctrine of fairness and justice in this particular.

The measure known as the Absentee Voting Bill specifies that general law be enacted to enable voters who may, "on the occurrence of any general election, be unavoidably absent from the state or county of their residence because of their duties, occupation or business require them to be elsewhere within the United States, may vote, and for the return and canvass of their votes in the election district in which they may respectively reside." The successful ratification of this measure by the public will make it possible for such individuals as traveling salesmen, actors, business executives, instructors and travelers generally to have a voice in the administration of their respective communities, as well as furnish a means whereby such voters will have a say in the affairs of the nation.

Uses Trade Acceptance.

IT MAY BE taken for granted that no sane group of manufacturers would adopt a policy harmful to the interests of their dealer customers. The reason is clear. In such circumstances, they would not be able to hold the trade. Hence, the policy would hurt their interests as well as those of the dealers. It is logical to infer that when manufacturers approve the adoption of the trade acceptance in their business, they know that it will benefit the retailers as well as themselves. There is an additional argument in behalf of the Trade Acceptance, therefore, in the fact that it was recommended and adopted by the recent convention of the National Paint, Oil, and Varnish Association.

As the name indicates, the Trade Acceptance is distinctly a trade document, therein differing from the usual draft or promissory note which may be and is used in many transactions other than the sale and purchase of goods. Practically all merchandise is now sold on terms which call for payment in full within a certain period of months or days after the purchase, or a cash trade discount is offered if cash is received within a shorter period. Amounts so owed by a purchaser appear on the seller's books as Accounts Receivable. If the buyer does not remit within the trade discount period, the seller has only his own book record to represent the transaction which stands for the remainder of the period, probably sixty days, ninety days, or longer, until the account is paid. This record is called an asset of the seller, but it is an intangible, unusable asset, uncertain, and subject to many complications. A Trade Acceptance is simply another way of making this same record, being writiten or drawn by the seller on a separate piece of paper, instead of in the ledger, and agreed to or accepted by the buyer, thus converting the asset into a tangible one with many of the former uncertainties and complications eliminated.

There seems to be a general impression that a "Trade Acceptance" is a mysterious, complicated device, the use of which requires considerable training and involves a radical and uncertain revolution of business and financial methods. On the contrary, a Trade Acceptance, as one writer has said, "is as simple as a safety-pin and it can be as easily and effectively applied."

The financial ruin of many merchants has been caused primarily because the present system makes buying so easy that goods have been bought injudiciously either as to kind or quantity. If the merchant knows that he will sign an obligation for his purchases, which must be met on a certain date, he is going to be very careful and will buy only such goods as he needs and can sell to meet those obligations. This may seem like a hardship at first, but after buying was once established on that basis, every merchant would be materially benefited.

Many small merchants could well use certain merchandise which they can not secure because their credit is not sufficiently established to enable them to buy on sixty or ninety days open account, and because now it is not considered good business to give a merchandise note. Trade Acceptance would meet this situation. These documents will be considered just as accounts payable are now considered, being issued at the time of purchase. Merchandise notes will be obligations representing settlement of claims which are past due. Trade Acceptances should not be renewed, and to adhere to their specific character should be executed with a short time after the purchase. Renewals should be in the form of merchandise notes.

There is in this country a sense of pride in buying on open account and a prejudice against signing an agreement to pay for the purchase. However, this is a false pride and a false prejudice. A debt is a debt no matter in what form it is recorded and in business there is no evil in owing a proper amount of money. The signing of a Trade Acceptance will characterize the acceptor as one who is conducting his affairs on a business basis and does not hesitate to declare his intention of paying his bills on their due date.

Slacker or Scab.

THE RED OF our flag and the gold of the overseas service chevrons are the only colors which America will tolerate as symbols of social and industrial progress. The fighters who modestly bear these colors on their sleeves have the first call upon our purse and patriotism. They need the permission of no union to earn a livelihood. To call them by an opprobious name because they chance to work without such permission is a damnable outrage. In the strike at the plant of the Rock Island Manufacturing Company, Rock Island, Illinois, a number of Belgians who fought neither for this country nor their own heaped dishonor upon both countries by calling the returned soldiers who took their places by the vile name of "scabs." These malcontents are seared to the very marrow with the disgrace of being slackers. They worked all during the war in the United States at top wages. Some of them have been in America for several years without applying for citizenship. One man whom they called a scab wears four foreign service stripes. He gained a lieutenant's commission on

the battlefield. He has three merit emblems. For two years he fought for the aliens' country while the alien was safe in this soldier's country drawing several times as much pay as he. If we must choose between a slacker and a scab, let us place our suffrage on the little red stripe on the left coat sleeve of the man who risked all to free the world from imperialism.

RANDOM NOTES AND SKETCHES.

By Sidney Arnold.

The wisdom of the ancients is a source of guidance to the moderns. A fable attributed to Marcus Vipsanius Agrippa, a Roman statesman who lived in the first century, applies with telling force to the strike situation of our day. The fable reads: "It once happened that all the other members of a man mutinied against the stomach, which they of the body accused as the only idle, uncontributing part in the whole body, while the rest were put to hardships and expense of much labor to supply and minister to its appetites." Labor seems to feel that capital is the stomach for which everything works and which does nothing personally to obtain its own sustenance. How long the other members of the body could thrive without the stomach is not difficult to imagine.

* * *

Being fastidious in the choice of words is all right, declares my friend Walter Wimmer of St. Louis, Missouri, who makes "Home Comfort" warm air heaters. Sometimes, he adds, the misuse of a word gives piquancy to an expression, as in the case of the native missionary who was telling the missionary in charge of his district that a sparrow had built a nest on the roof of his house.

"Is there anything in the nest yet?" asked the missionary.

"Yes," said the Indian brother, proud of his English, "the sparrow has pups."

* * *

It is a good practice to test the accuracy of your conclusion by going back over the line of reasoning and checking up each item, says my friend James B. Carson, Secretary Ohio Hardware Association. He gives an example as follows:

"Nothing the matter with you at all," gruffly spoke the physician. "You are in perfect health. Why, your pulse is as steady as clock-work."

"But, doctor," whined the patient, "you have got your fingers on my wrist watch."

* * *

Learn to hoe your own road. Your pathway will be easiest if you follow this rule. Too often we grumble at stones in our own driveway when our neighbor blasts rock out of his. Those who slumber in the shade of the roadside waiting for some one to come along and give them a lift frequently sleep while the vehicle rumbles past. And then they complain of their hard luck.

Most men who have made their marks in the world didn't start out with their pockets full. There are exceptions, to be sure, but those who succeed under the handicap of the "easy way," do so because they wisely pick their course. Men grow strong by climbing the steepest hills. If you reach the summit by your own grit you find more refreshment in the evening breeze.

* * *

A humorous illustration of the saying that "circumstances alter cases" was related to me by Fred Biffar, the sporting goods dealer, Chicago, Illinois, as follows:

"Well," said the square jawed old gentleman who was the payer of an income tax that gave him the chills every time he thought of it, "go on. I'm anxious to hear why you think you are good enough for my daughter."

"I graduated at the head of my class in college."

"You'll have to give me a better reason than that."

"I began working for $10 a week and am now making $10,000 a year."

"Pretty fair. Let's hear some more."

"As you doubtless know, I'm a lawyer. A few days ago a lady who possessed a bundle of letters which you had written to her called on me. In most of them you addressed her as 'Dear Baby.' I offered her $10,000 for them. I have until to-morrow to produce the money."

"You say you graduated at the head of your class?"

"Yes."

"Well, sir, I've never told anybody about it before, but I always have hoped Bessie would marry a scholar."

* * *

Sometimes an adjective changes the meaning of a word. Watch your adjectives, cautions my friend George Harms of F. Meyer and Brother Company, Peoria, Illinois. He quotes this pithy dialogue to the point:

"So you are hungry, eh?" said the woman to the tramp. "How would a few chops suit you?"

"Lamb or wood?" asked the tramp warily.

* * *

The habit of postponing action till tomorrow is responsible for many losses in the business world. The alert man gets advantages by doing things while others are drawling. Paull Hayden expresses the idea in these lines:

Beating the Other Man to It.

Today brought a task to be done;
I said "I will do it tomorrow";
Another man did it first
I found to my lasting sorrow.

"Tomorrow I'll get on the job."
Another man started today;
I found that the job had been done
And another had earned the pay.

I said, "I will start in an hour
To find what is really in it";
Another man won the prize,
He started in half a minute.

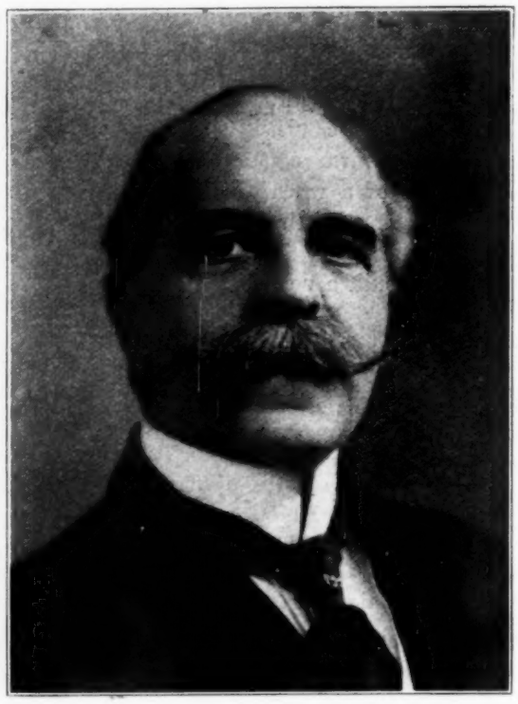
I "waited awhile" for Luck,
I knew I would surely get her;
I waited—she never came—
Another man went and met her.

But now I am P D Q;
When a thing's to be done I do it,
I'm leaving the rest behind,
I Beat The Other Man To It.

AMERICAN ARTISAN

CHARLES H. MATTHEWS.

Heredity carries with it obligations. What a man receives from his parents and grandparents is not his until he has earned it. This is true at least of moral qualities. The physical heritage, also, must be maintained by personal effort. The advantage of such transmission is that it enables one to begin life with less handicaps than common. On the other side, however, it imposes tasks which do not urge themselves upon less favored individuals. The peasant who has no traditions of achievement to keep up may plod along through life without experiencing the high tension of the artist or man of affairs. In his blood there is no urge of high emprise from daring forebears. No one expects him to emerge from the mass. When he achieves distinction, the intrinsic value of what he does is unduly sharpened by contrast with his environment. Naturally, it is more difficult for one whose heritage forms a complex background to accentuate his own developments. The differences available for contrast are not so varied and clearly defined as in the case of the peasant. To ascend a thousand feet along the precipitous sides of a mountain attracts attention, from those on the ground. To crawl the last fifty feet to the peak of the highest mountain is a greater achievement measured in terms of effort and daring rather than of distance. This element of relativity must always be taken into account in summing up true values in any accurate analysis of character.



Charles H. Matthews started out with an opulent heritage. His ancestors were distinguished for their bravery in the fighting at Groton Point. They were prominent in the civic and social affairs of Connecticut where he was born in the city of Waterbury, March 30, 1852. His father, Henry Avery Matthews, was successively mayor, legislator and senator—a man of lofty ideals who set high standards of conduct for his son. When the son was sent to school in Waterbury and later during two years of study in the Fabrique School in New Haven, Connecticut, he worked harder than other pupils because he felt himself under the drive of family traditions of scholarship. He won honors in his classes because he was true to his heritage. He took a five years' collegiate course in the New Haven Institute, New Haven, Connecticut. In 1873 he entered Sheffield Scientific School of Yale University, New Haven, Connecticut, to study civil engineering. His studies were cut short, however, by the big panic. He felt himself obliged to withdraw from the school in order to place his services at the disposal of his father during the industrial crisis of that year. He entered business at Waterbury, Connecticut, in the firm of Matthews and Stanley, makers of stove trimmings. Later he became associated with Matthews and Willard Company of the same city. Business interests finally influenced him to go West; and in 1880 he became identified with the firm of Ireland and Matthews, manufacturers of stove trimmings, Detroit, Michigan, in which he ably fulfilled the office of secretary.

All through his business career—which has been spent chiefly in the stove trade—he has left no endeavor untried to live up to his heritage and to merit the virtues of his endowment. He has not been satisfied with personal success. The same spirit which moved his ancestors to devote themselves to the upbuilding of the communities in which they labored has actuated him to work for the general welfare of the industry with which he has been so honorably associated for more than forty years.

He has gained the respect and liking of stove manufacturers in every part of the country. For 41 years he has been a prominent figure in all their conventions. He is tireless in the promotion of the interests of the trade. His opinion is sought and highly prized. If he has any enemies it is not among honest, forthright men. His integrity is beyond reproach. He has enhanced every value in the heritage which he received from the sturdy fighting men and gracious women of his Connecticut ancestors. His physical makeup is a counterpart of his moral excellence. He carries his sixty-five years with the jauntiness of a cavalryman. Indeed, he is more alert and vigorous than the average man twenty years his junior. This robustness he gets from his mother who is still alive and active at the age of ninety-three years.

HALL OF FAME

CHARLES J. BIEK.

Whatever its disadvantages may be from the angle of the individual workman, there is no doubt that the marvels of our progress are due in a great measure to specialization. It is virtually impossible, within the limits of a single lifetime, to master all the details of a particular art, science, or industry. The physician in general practice must rely on the summarized results of special research work in all the subdivisions of medicine. He is dependent upon the chemist whose science requires years of patient study to acquire. He is indebted to the anatomist and to scores of other specialists for the knowledge which he uses in the treatment of his patients. The manager of an industrial plant finds himself in a position analogous to that of the physician. He is obliged to rely upon the generalized reports from every division and subdivision of the establishment for his guidance. Manifestly, it would be a waste of precious time for him to give his attention to every document which enters into the files of his office; to every article in each shipment which goes out of his factory; to every bolt and nut and screw in the machines of the plant; to every pound of raw material which is received; and to every sale which is consummated of the company's products.

Indeed without specialization, it would be a physical impossibility for commerce and production to function upon the vast scale of today's civilization. We would be forced to resume the slow and tedious processes of individual manufacture were it not for the highly developed division of labor and management of our industry. It is, therefore, to the interest of business that specialists be trained in every branch of production and distribution. The extent to which this is accomplished in any given establishment is the measure of its successful development. There are two points of view from which specialization may be considered. One is the acquisition of knowledge and skill in the performance of a particular task followed by unvarying repetition of the limited number of operations required for its performance. The other includes the same elements and adds to them ambition, intelligence, and enthusiasm, accentuated by constant efforts at improvement. It is well to have these things in mind when attempting to gage the character and achievements of any man who makes a profession of his specialty.

In the case of Charles J. Biek, Secretary of the Rudy Furnace Company, Dowagiac, Michigan, we are greatly helped to an understanding of his personality by the fact that he elected to specialize in business administration and heating and ventilating early in life and adhered to his choice with a persistence which overcame all obstacles. Charles J. Biek was born in Dowagiac, Michigan, August 1, 1891, and attended the local schools of that city, from which he was graduated in 1909. During the last three years of his studies he specialized in business administration with particular reference to heating and ventilating. He had a genuine liking for these things and was not satisfied merely with memorizing enough of their details to pass satisfactory examinations at the end of the course. He neglected no opportunity to add to the sum of his knowledge of heating and ventilating, both as to theory and practice.

When, therefore, he left school he had no difficulty in securing employment in the offices of a leading manufacturer of warm air heaters. He worked there continuously until the organization of the Rudy Furnace Company in 1915, when he became associated with that concern in the capacity of secretary and advertising manager. Here the value of his specialized training is proved every day by the quality of his services, which are heightened by his genial and cordial disposition. He is affiliated with the local order of Elks and the Knights of Columbus. He is Esteemed Leading Knight in the Elks and has devoted a great deal of time to the different phases of K. of C. work. His hobby is Rudy warm air heaters. When he sees orders for them roll in and carloads of them roll out, he has had recreation enough for the day. His work is never a drudgery for him. He enjoys every minute of it. Therein lies the secret of his success and a lesson to all men of business. To find joy in one's occupation is to get the most out of life.

UP TO THE MINUTE NEWS SIFTINGS

The Gohmann Brothers and Kahler, New Albany, Indiana, operating a stove foundry there, are building an addition, 60x174 feet.

The Southern Stove Works, Richmond, Virginia, Hermitage and Leigh Streets, has plans for a plant for the manufacture of stoves. The company is capitalized at $500,000.

The stove dealer has been inclined to regard the mail order house as his hardest competitor. He has been harboring a delusion, however. The live dealer need have no fear of the mail order house.

POSTPONES TRADE CONFERENCE.

Late cable advices about delays incident to the departure of delegates from Italy, France, and Belgium make it necessary to postpone the International Trade Conference, called at Atlantic City, New Jersey, by the Chamber of Commerce of the United States, from the week of September 29 to the week of October 20.

"The program generally will be as outlined in the official announcement, but it will be stronger, because of the additional time which those participating will be able to devote to its preparation," says President H. L. Ferguson in a letter addressed to 20,000 business men who hold invitations.

The Conference will take up such questions as: How can international trade be reconstructed? How can the free flow of commerce both ways across the Atlantic be restored? How can the United States and the nations with which it was associated in the war re-establish the trade relations vital and necessary to world prosperity?

No more important problems than these exist. No more important conference than this has been held since the peace conference met at Paris. That conference convened to settle the political future of almost the entire world. Only immediately did it deal with the world's trade. The Conference to advise measures for restoring international trade takes up the world's greatest problems where the peace conference left them. Peace without production and trade in the products of industry means starvation.

Under the inspiration of the Chamber of Commerce of the United States the leading business men of America have lent their time and their brains to the Conference because they realize that the welfare of the peoples of the five great nations hangs upon foreign trade reconstruction.

PUTS JOY IN WORK.

To the human senses there is no exact measure of time. Pleasant sensations make hours go by seemingly like minutes, while unpleasant encounters drag minutes into centuries. There are only twenty-four hours in each day, yet you have often said, "Oh, what a long day this has been." When you are continually watching the clock you lack interest in work. Along with this comes a seeming lengthening of the day. Stop immediately! Learn to enjoy every minute of your work. In this way you figuratively cut your work in half. You thereby get more out of life. Also, a noticeable increase in your personal efficiency will result. This is entering an asset to your bank account.

GIVES GOOD, STEADY WARMTH.

The main purpose in the construction of its oil heater is the intensifying of the heat to the highest degree, thus gaining the most possible warmth from the oil used, says the Wheeling Stove and Range Company, Wheeling, West Virginia, makers of the Valley Star Oil Heater. In an ordinary type of oil heater the heat radiates from the top, but the scientific principle employed in the construction of the Valley Star Oil Heater focuses the light rays and produces a strong blast of heat. Twenty hours of continuous heat from one gallon of oil is said to be the average performance of the Valley Star Oil Heater. These oil heaters are neatly built. They are handy and very simple to use.

Valley Star Oil Heater, Manufactured by the Wheeling Stove and Range Company, Wheeling, West Virginia.

Many advantages in the handling of this line of heaters will be shown by inquiring of the Wheeling Stove and Range Company, Wheeling, West Virginia.

DEPRECIATION IS A COST FACTOR.

Many concerns do not consider the item of depreciation as a part of costs. They prefer to wait until the end of the year and write off the desired amount against profits. Very often the amount written off is influenced by the amount of profit made. There is a certain fixed depreciation on both buildings and equipment which is taking place all the time. Fair percentages should be decided upon, an amount based on these percentages charged into costs month by month and set up as a reserve. In this manner the cost value of all buildings and equipment is preserved, which is a very desirable figure to be maintained. Depreciation on buildings should be charged against departments according to the floor space occupied; depreciation on equipment should be charged against departments according to the valuation of the equipment in the department.

THE WEEK'S HARDWARE RECORD

Of Interest to Manufacturer, Jobber and Retailer

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 38 to 43 inclusive.

The Tubular Rivet and Stud Company, Wollaston, Massachusetts, is taking bids for a building.

The Wells Hardware Company, Holyoke, Massachusetts, plans a four-story building, to cost $50,000.

The J. H. Sessions and Son Company, Bristol, Connecticut, hardware, has let a contract for an addition, four stories, 72 feet long.

The R. C. Neal Company, Buffalo, New York, has been capitalized at $100,000 by Ray C. Neal, William H. Means and Paul R. Smith.

The Spring Nut Lock Company, Syracuse, New York, has been incorporated with $25,000 capital by L. O. Keith, W. R. Hollywood and A. E. Culver.

The Cleveland Hardware Company, Cleveland, Ohio, is receiving bids for a one-story, 40 x 100-foot steel and brick factory to cost approximately $25,000.

The Blum Safety Razor Company, Johnstown, Pennsylvania, has been incorporated with $50,000 capital by T. J. Callete, Harry Silverstone and Harry Blum.

Bids have closed for a four-story and basement, 50 x 101-foot addition to the factory of the Bemis and Call Hardware and Tool Company, Springfield, Massachusetts, to cost $45,000.

The Sheridan Cutlery Company, Sheridan, Indiana, capitalized at $50,000, has been chartered to manufacture cutlery by Theodore Pettijohn, president, and Maurice Mendenhall, secretary.

The Stephen Decatur Hardware Company, New York City, hardware, tools and metal specialties, has been incorporated with $20,000 capital by J. Lebowich, I. Bernstein and S. D. Hausler, 233 West 107th Street.

Work will start shortly on the first unit of the proposed cutlerly plant of the H. Boker Company, New York City. As one of the three units of the main factory there will be a three-story building, 135 x 155 feet. There will also be a one-story forge and hammer shop, 57 x 137 feet and a power house, 58 x 80 feet.

AUSTRALIAN HARDWARE MAN VISITS CHICAGO ON BUSINESS TRIP.

Expressing himself as pleasantly impressed by the cordiality and good fellowship of the trade in this country, W. Hermon Slade of the firm of W. Hermon Slade and Company, Sydney, New South Wales, was entertained Thursday, October 2, 1919, at the Hardware Club of Chicago. He was the guest of E. R. Swift, manager of the Chicago office of the Stanley Works, New Britain, Connecticut. Mr. Slade is Australian representative of P. and F. Corbin and of the Stanley Works, as well as of the Stanley Rule and Level Company, all of New Britain, Connecticut.

HARDWARE CLUB OF CHICAGO ELECTS NEW BOARD OF DIRECTORS.

The chief branches of the hardware trade are ably represented in the personnel of the new Board of Directors of the Hardware Club of Chicago. The election took place Friday, October 3, 1919, in the rooms of the Club on the eleventh floor of the State and Lake Building, southwest corner of State and Lake Streets, Chicago, Illinois. The members elected as directors are: H. C. Grosse, of the American Ironing Machine Company; J. S. Kandy, of French Battery and Carbon Company; W. S. Kennedy, of Hibbard, Spencer, Bartlett and Company; H. A. Squibbs, of American Steel and Wire Company; and A. H. Vayo, of Eclipse Manufacturing Company.

HARDWARE MAN'S SON GETS MEDALS FOR BRAVERY AND SERVICE.

A pardonable glow of parental pride is noticeable these days in the expression of Charles S. Meacham, Manager Chicago office of the Lovell Manufacturing Company of Erie, Pennsylvania. It is due to the arrival from overseas of his eldest son, Major W. C. Meacham, who has been honored with the Croix de Guerre and the Distinguished Service Cross. Major Meacham was director of the ambulance companies of the Second Division, numbering 580 men. He is of the best type of American surgeons whose bravery under fire is proverbial. The military report of the lieutenant-colonel of the Medical Corps of the Second Division speaks of him as follows:

"This officer has shown marked ability to command troops. While in command of Ambulance Company No. 16 he was selected and appointed director of ambulance companies. As such he showed special ability in the field directing the work of evacuation, both in handling the ambulances and the litter bearers' sections, organizing the latter and training them to a very high state of efficiency. This work brought him, at times of necessity but more frequently voluntarily, into positions where his work was performed under heavy enemy fire. He displayed marked gallantry and fearlessness."

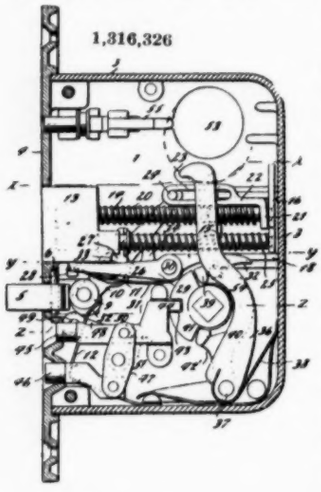
Another lieutenant of the Medical Corps makes the following report of Major Meacham after the war was ended:

"Major William C. Meacham, M. C., director of

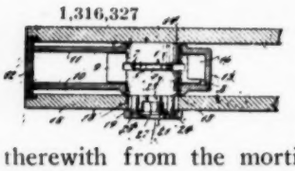
the ambulance section, Second Division Sanitary Train, is an officer of exceptional ability. He inspires confidence in both officers and men by his application to duty and his absolute fearlessness under fire. His record of clearing the field in an average time of about one hour under the strain and stress of active warfare is a truly remarkable record. His ability to work long hours without rest in connection with his other qualifications render him an officer invaluable to the service."

PATENTS TWO LOCKS.

Oscar C. Rixson, New Rochelle, New York, has procured United States patent rights, under numbers 1,316,326 and 1,316,327, for two locks, described herewith:



Number 1,316,326: In a lock, the combination of a bolt, two springs acting thereon to effect movement in opposite direction, a strike actuated member arranged to store power in one of said springs to project the bolt, and means whereby the movement of the bolt under such power, will put the second spring under tension to retract the bolt.



Number 1,316,327: The combination of a mortise lock, a second lock mounted in the frame of the mortise lock and removable therewith from the mortise, and an escutcheon detachably connected with and spaced from the said second lock.

AMERICAN COMMERCIAL BODY RENEWS ACTIVITIES IN BERLIN.

With the reestablishment of commercial relations between the United States and Germany, the American Association of Commerce and Trade has resumed its activities in Berlin—as far as existing American laws permit. The organization is desirous of getting into correspondence with its former patrons for the purpose of ascertaining how to be of service to American manufacturers and exporters. A reading room is maintained by the Association at 59-60 Friedrichstrasse, Berlin, for the convenience of American travelers. The leading business publications are kept on file there. Current issues of AMERICAN ARTISAN AND HARDWARE RECORD are always found well thumbed by visitors to the reading room.

DISTRIBUTES BEAUTIFUL POSTERS TO ADVERTISE CONVENTION.

A beautiful set of posters is being sent out advertising the coming Congress and Exhibition of The Pennsylvania and Atlantic Seaboard Hardware Association, Incorporated, to take place at Philadelphia, Pennsylvania, in the Commercial Museum, February 10th, 11th, 12th and 13th, 1920. Dealers are asked to place these posters in a conspicuous place of their store. The exhibitions are to be chiefly of educational value, and, therefore, of interest to everyone. Another series of posters will follow at some future date, for it is the aim of The Pennsylvania and Atlantic Seaboard Hardware Association, Incorporated, to make this Convention and Exhibit unparalleled in the history of the trade. Together with the posters, tickets will be furnished to retail dealers. The tickets are free. They should be widely distributed among the public. The public is admitted with these tickets in the evening. As many as may be desired can be had by addressing Sharon E. Jones, Secretary, The Pennsylvania and Atlantic Seaboard Hardware Association Incorporated, Pittsburgh, Pennsylvania.

TWO AMERICAN PRISONERS ESCAPE FROM RUSSIAN DUNGEON.

Curt Smith, the younger of two Americans, glanced through the thick steel bars into the nearby woods. "If we could only reach those woods we'd be safe," he said. "The Finnish border is not far away—our guide is to meet us there."

Delta File, Made by Delta File Works, Philadelphia, Pennsylvania.

"Yet, but we can't bite those bars off," spoke up Jim Langdon, his pal.

The two Americans already being a week behind their appointed time, the guide became uneasy. The town in which the prison was located was the only one having a railroad line to the Finnish border. The guide had arranged to meet the two Americans in the frontier town.

After making numerous inquiries for the two travelers he at last found an old man who said he had seen the two Americans being escorted somewhere by soldiers. The guide realized what had happened.

Russians are easily bribed. The guide knew this. He would bribe the guards. A message was delivered to the prisoners with a file by one of the guards.

"Let's hurry, we've only got a few hours," said Curt, as he started vigorously to file away at the thick steel bars. He worked hard and fast and was soon tired. Jim then took the file. He remarked at the ease with which the file worked.

"These Russians know how to make files, if they don't know anything else," said Jim

The escape was accomplished. Jim clutched the file in his hand as a weapon for protection. The guide who had been watching the movements of the Americans made toward them.

"There's a cave a little distance from here, let's go in there till morning," he said.

The cave was found and a fire was started inside. Jim held the file up to the fire and examined it. Suddenly his eye caught this inscription: "Delta File Works, Philadelphia, Pennsylvania, U. S. A."

"Well, I ought to have known by the way it worked that it was some uncommonly good American make," he exclaimed.

IOWA HARDWARE RETAILERS PREPARE FOR ANNUAL CONVENTION.

Convinced that the need for closer trade cooperation is greater than ever, the Iowa Retail Hardware Association is making extensive preparations for the holding of a convention and exhibition in the Des Moines Auditorium, Des Moines, Iowa, February 10, 11, 12, and 13, 1920. There will be no oratory, but much practical speaking of the sort which can readily be translated into the musical idiom of the cash register. Methods for improving store management, judicious buying, salesmanship, advertising, accounting, and other topics will be discussed; and every member is expected to do his share toward making the meeting a positive benefit to the hardware trade of Iowa. The secretary of the Iowa Retail Hardware Association is A. R. Sale of Mason City, Iowa. He is a veteran organizer and is leaving no effort untried in an endeavor to assure the success of the forthcoming convention.

HOLLAND MERCHANT WANTS HARDWARE SUITABLE FOR EUROPEAN MARKET.

A Holland merchant, now in New York City, desires to be placed in communication with manufacturers of all kinds of hardware suitable for the Holland and European markets. He should like to receive offers of goods, descriptive catalogues, prices, and samples where possible. He is prepared to make cash payment in New York and to furnish banking references. He has requested the aid of AMERICAN ARTISAN AND HARDWARE RECORD in this matter and his name and address will be given to hardware manufacturers who wish to get in touch with him.

SALESMEN MUST HAVE ANALYTICAL MIND TO BE SUCCESSFUL.

The human brain being in the nature of a mechanical device is subject to the law of progress. Salesmanship is an acknowledged mental accomplishment. More than a glib tongue is needed. As with machines, time throws into the scrap heap of antiquity various methods of selling. He who would be a good salesman must keep abreast of the improvements made from time to time in the selling art.

Professor Harold Whithead, professor of Sales Relations, College of Business Administration, Boston University, Boston, Massachusetts, expounds many valuable suggestions in the following extract from a speech given at the Convention of the King Hardware Company, Atlanta, Georgia:

"Instead of merely grabbing orders, the modern salesman thinks; he analyzes conditions, advises with his customers and helps them to dispose of his goods.

"I consider him a poor salesman who does not give thought to the ultimate consumption of his goods, for until his customer has cleared the goods off his shelves there is no more business for him. Successful selling implies a steady and continuous flow of business.

"I said that the salesman of today must analyze conditions. If ever there was a time when they needed analyzing it is now.

"Two big problems face hardware salesmen everywhere. They are prices and transportation.

"Are prices going to drop—or what? The future is always a guess, of course, but here is my belief.

"I believe that prices will never go to anything like their old level. I believe commodities have taken on a new value and that the new value is here to stay.

"We cannot destroy around thirty thousand dollars' worth of materials a minute for over four years without putting new values on what is left.

"Add to that, in our own case, an additional thirty-six billion dollars of paper money and at once we have a clear reason for high values. Europe is flooded with paper money of all kinds.

"I believe it would be nothing short of bankruptcy for old values to suddenly return. It would mean cutting in two the value of all property. What business interest could withstand such an appalling loss?

"Prices *may* decline, but if so it will be very, very slowly. Personally, I see no reason to anticipate a reduction for several years. As we have wasted supplies, so we have wasted life. Over seven and a half million lives were thrown into the furnace of war. Naturally wages must be higher just as commodities are higher.

"This, then, is a good time to buy—if we can get goods to sell. Suppose prices did drop a little, how is that going to help the retailer who can't get goods?

"Only last week I was told that the automobile industries had placed a joint order for 346,000 tons of steel—to protect their output.

"Don't let high prices scare you into a hand-to-mouth policy. It isn't the prices you pay, but the profit you make that counts.

"'But,' you say, 'the market is now open to the world. Won't we have goods dumped here and won't that force down prices?'

"I see no reason to fear heavy buying. World stocks are depleted and I think that for a few years the demand will be for our goods in Europe rather than vice versa.

"Of course, we'll have goods from Europe. How otherwise can Europe pay her bills? Already old imported favorites are beginning to appear—but imported lines merely help us to meet a demand at present beyond us.

"So I say, sell your customers all they need if you can supply them. The retailer who plans to buy small and often is going to lose much trade through being 'out.'

"There are two reasons for this: First, the difficulty of getting goods. Second, the difficulties of transportation.

"Think of it. A small parcel which five years ago would cost 25 cents by express and be delivered in two days, now costs around 60 cents and is delivered—when it gets there.

"The transportation difficulties will doubtless con-

tinue until the roads are turned back to the owners with a governmental supervision.

"When that is done we ought to expect a development of our canal and coastwise shipping and a close cooperation between these and the steam railroads."

DEFINES THE FUNCTIONS OF TRADE JOURNAL IN AIDING NATIONAL ADVERTISING CAMPAIGNS.

The necessity of gaining the dealer's acceptance of a commodity as a preliminary to national advertising campaigns is well explained by R. R. Shuman of Chicago, Illinois, in an address delivered at the recent convention of Associated Business Papers held in the Congress Hotel, Chicago, Illinois. The examples which he gives are equally applicable to every kind of merchandise sold to consumers through the agency of a retailer. The most interesting part of his address is as follows:

"Let us begin, then, with a campaign whose purpose is to introduce a household commodity—that might be sold through a variety of retail channels. Say it is a line of soaps—toilet, laundry and mechanics' soaps—toilet soaps selling mainly through the drug stores, laundry soaps through the grocers, mechanics' soaps through the hardware, auto supply stores, and mill supply houses, and all three groups through department stores, general and dry goods stores.

"We have a big job before us—the job of building up a consumer acceptance among practically the whole population of the country, for a group of products, each of which will be met with strongly-intrenched competition.

"Where does the 'trade paper'—the dealer paper—belong, in such a campaign?

"Ask the average advertising agent this question; and he will tell you frankly that it doesn't 'belong' at all; that he has no time or money to waste on a pack of beggars, and that he'll take care of the dealers, all right, all right, by double spreads in the 'Universal Trade Paper' at twelve thousand dollars a throw. He will recite a lot of second-hand 'testimony' about the dealers 'demanding' that kind of 'help' before they will stock any new goods; and will indulge in the familiar sophistry that the only way to introduce a new commodity is by reaching both dealer and consumer—simultaneously—through mediums of general circulation that *both* read.

"I grant that, in this soap campaign, the media of general circulation are valuable and necessary, and can be used, at the right time, wastelessly on a commodity of universal consumption.

"But I hold that the *right time* to use the general media is after the soap is on the merchants' shelves; and that the best way to put it onto the merchants' shelves is by a vigorous and sustained campaign in the Dealer Trade Press.

"My campaign for introducing such a line of soaps would be as follows:

(A) Full page run in the drug, grocer, dry goods, hardware, automobile and other *dealer publications.* My talks to the dealers reading these publications would be very largely devoted to announcing how we were going to create a consumer demand—national and local—to *help* the dealer; and how his profit margin and his quick turnover would make this a very desirable line.

(B) Standardized *local newspaper* campaign, in which (except in the largest cities) the dealers' names would be printed at the bottom of each of the larger pieces of copy.

(C) Full page campaigns in media of large general circulations timed to begin long enough *after* the opening of the Dealer "drive" to permit of first stocking up a large enough *percentage* of dealers, to make the general consumer advertising effective.

(D) Collateral local campaigns, in communities where dealers have been secured, in motion picture theaters, billboards, urban and inter-urban cars, etc.

(E) Signs and displays for windows—and for inside the store—to connect up the local newspaper and other consumer advertising with the stores handling the goods.

"This program makes the Trade Press the advance-guard, the way paver, the door opener for the jobber salesmen or the soap company's salesmen, or both.

"It reduces introductory dealer selling-costs out of all proportion to the small investment involved, by converting dealer resistance to interest, and interest to desire-to-buy.

"It does away with the vast waste involved in creating a consumer demand for a product before the goods are obtainable in their home town by the consumers interested.

"And you, gentlemen, who publish dealer trade papers, should make it clear to manufacturers that, until they have won over *your* dealer subscribers and gotten their goods on those subscribers' shelves, their money will be spent in stimulating the sale of *competing* products that *are* on those shelves. Because your subscribers are the *intelligent* dealers—the real business men, whose advice about any commodity carries ten times as much weight with their customers as countless petty ads in countless consumer publications.

"Tell those manufacturers that you have taught your dealers, and their clerks, that their first duty is to sell the goods they *have;* to simplify, rather than multiply their lines, and that you have taught them, and you will continue to teach them that 'substitution' is not only not a 'crime' but a cardinal merchandising *virtue;* a test of true salesmanship-ability; the merchants' greatest protection against the bankruptcy which inevitably follows a too-easy surrender to the clamor of temporarily-stimulated consumer-demand and the consequent lumbering of shelves with heterogeneous assortments of slow turnover goods.

Summary.

"Let us summarize the whole discussion by the following concise statement of facts:

"1. That the dealer trade papers are necessary to the speedy and economical nationalization of products sold *through dealers.* Their function is to secure the

willing and intelligent cooperation of the merchants and their clerks.

"2. That the technical and vocational publications offer the logical and economical market place for products, appliances or service belonging specifically to the callings they reach.

"3. That the present tendency of diverting technical advertising belonging in these specialized publications to popular magazines of high rates is an economic waste that will largely cease when advertising shall be bought for results, rather than as a means for reducing excess profits taxes.

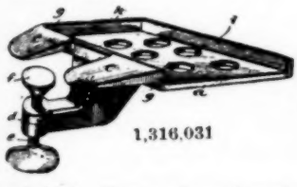
"4. That the average and aggregate buying power and the buying habits of the readers of any publication, for a given commodity or service is the true test of the advertising value of that medium for that service.

"5. That the business press offers audiences of exceedingly high average buying-power, for relatively high-cost products which their readers buy as individuals for personal or family use; and that the solicitation of such advertising by business papers is legitimate.

"6. That a national advertising campaign by the business press, in selected media appealing to executives, would do much to create a better understanding of the place and importance of business papers in national campaigns; and would largely sweep away the barriers that tradition and ignorance and selfishness have built up between national advertisers and the business press."

SADIRON SUPPORT IS PATENTED.

Dora Hartig, Sooke, British Columbia, Canada, has been granted United States patent rights, under number 1,316,031, for a sadirion support, described in the following:


1,316,031

A flat iron holder, comprising a polygonal supporting plate having marginal upstanding ribs, one of said ribs formed on its upper edge with integral specially disposed wedge shaped bearing members, and surface of said plate provided with a centrally disposed horizontal arm arranged below and spaced from said bearing members, and provided with a clamping screw.

TRANSFERS ENTIRE EQUIPMENT.

The property of Wayne Manufacturing Company, Newark, New Jersey, makers of the Sleeth Flexible Steel Mat and the Adjusto Household Rod, has been taken over by the Fernald Manufacturing Company, Northeast, Pennsylvania. The Fernald Manufacturing Company has decided to transfer the entire equipment of the Wayne Manufacturing Company to its plant at Newark, New Jersey, where it will continue the manufacture of steel mats and household rods.

No hardware dealer can justify idleness around his establishment. If he can't find work for himself and his clerks, it's a sign of his own weakness.

COLLECTIVE ADVERTISING BUILDS UP TRADE OF UNITING MERCHANTS.

Already famous through the cooperative efforts of its business men to bring new trade to town, Neosho, Missouri, has taken another stride in the same direction, recently having begun to buy full-page advertising space in a newspaper in Joplin, Missouri, which is a much larger city, to tell people what Neosho offers them as a trading center.

The purpose was not to get trade out of Joplin, but from territory which might be served either by Neosho or Joplin.

Business men of Neosho, through the advertising club of that enterprising city, became aware of the fact some time ago that in these days when nearly every farmer has an automobile, trade can be drawn from a greater radius by any merchant, or any group of merchants, who will go after it.

At the last monthly "sales day" held by the Neosho Advertising Club, which followed the first of the advertisements in the Joplin newspaper, customers came as far as forty miles, and expressed their appreciation of the treatment they received and said they would come again.

While using full pages in the Joplin newspaper, the merchants continue, of course, to employ similar space in Neosho papers, and they also reprint the advertisements appearing in Neosho, and mail them to a list of 6,000 prospective customers. The cost of all such advertising is equally distributed among the business houses directly participating. For example, the cost of the Joplin page was $62.50. The thirty advertisers sharing the space paid $2 each, the advertising club paying the balance.

As indicated in a booklet which has been published by the Associated Advertising Clubs of the World for free distribution (address Associated Advertising Clubs, 110 W. 40th St., New York City) the remarkable success of the Neosho sales days has been based upon the fact that a committee of the advertising club passes upon the special offer each merchant makes for the "sales days," to insure that the customer whom the advertisement brings to town will be well pleased. In the meantime, the members of the advertising club had been making a careful study of advertising at their club meetings, to make their advertisements more effective, and in the club, also, they have exchanged ideas relative to better merchandising methods, thus enabling themselves to "back up" their advertising to the fullest possible extent.

The operation of this plan has made Neosho famous, the plan having been adopted by several other communities, both larger and smaller than Neosho, where advertising clubs have been organized to handle its operation. Frequently business men from other communities have gone to Neosho to investigate the plan at first hand. Business men of Clarksville, Tennessee, under the leadership of a banker of that community, recently decided to make a personal investigation of the Neosho plan with the purpose of adopting it, and merchants of Blair, Nebraska, are now contemplating similar action.

SATISFIES AND HOLDS CUSTOMERS.

A device which is sure to please all hardware dealers is the Hatfield Safety Razor Blade Sharpening Machine, shown in the accompanying illustration. It is made by the Hyfield Manufacturing Company of New York City, who state that it will sharpen twelve safety razor blades every five minutes. The machine is well constructed. It sharpens dull scissors, shears, carving knives, and kitchen knives. In this device, the grooves cannot be worn in the rollers as there is an oscillating movement back and forth of the rapidly turning rollers which has been adjusted so that the blades touch the top and bottom rollers in a different place each time up and each time down. The Hatfield Safety Razor Blade Sharpening Machine makes a customer of each person who enters the store to have blades sharpened. Once in the store, he can not help but notice the various articles on display and is always sure to come back. Dealers should write to the Hyfield Manufacturing Company, 21 Walker Street, New York, for full particulars on how they can make money on this machine.

Hatfield Safety Razor Blade Sharpening Machine. Made by the Hyfield Manufacturing Company, New York City.

COURTESY IS USED TO ADVANTAGE.

In large department stores courteousness is a part of every sale. It is announced in their daily advertisements. They will not, in any circumstances, countenance discourtesy on the part of any of their employes. Consumers appreciate being treated courteously by small dealers as well as by large ones.

OBITUARY.

J. M. Woodrow.

Having rounded out three-quarters of a century of usefulness, J. M. Woodrow, father of O. B. Woodrow, president of the Woodrow Manufacturing Company, makers of washing machines, passed away September 29, 1919, at Newton, Iowa. His life was rich in kindly deeds and generous sympathies. He leaves a heritage of goodness to his family and friends which adds to their possessions a form of treasure more to be desired than gold and many precious gems.

FILES REGULAR POSTOFFFICE REPORT.

In compliance with requirements of the United States postal regulations, the following statement is filed with the postoffice and published herewith:

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912,

Of AMERICAN ARTISAN AND HARDWARE RECORD, published weekly at Chicago, Illinois, for October 1, 1919.
State of Illinois, County of Cook, ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Etta Cohn, who, having been duly sworn according to law, deposes and says that she is the Business Manager of the AMERICAN ARTISAN AND HARDWARE RECORD and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Daniel Stern, 620 South Michigan Avenue, Chicago; Editor, Richard Moreno, 620 South Michigan Avenue, Chicago; Managing Editor, Daniel Stern, 620 South Michigan Avenue, Chicago; Business Manager, Etta Cohn, 620 South Michigan Avenue, Chicago.

2. That the owners are (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock): Daniel Stern, 620 South Michigan Avenue, Chicago, sole owner.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are (if there are none, so state): There are none.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

ETTA COHN, Business Manager.

Sworn to and subscribed before me this 27th day of September, 1919. SEYMOUR M. LEWIS.

(My commission expires January 15, 1921.)

OPPORTUNITIES FOR FOREIGN TRADE PRESENTED BY BUREAU OF FOREIGN AND DOMESTIC COMMERCE.

The Bureau of Foreign and Domestic Commerce through its Special Agents, Consular Officers and Commercial Attachés is receiving information of opportunities to sell hardware and kindred lines in several foreign countries. Names and locations will be supplied on request to the Bureau in Washington or its District Offices. Such requests should be made on separate sheets for each opportunity, stating the number as given herewith:

30699.—The purchase is desired by a firm in Norway of iron for use in buildings, wire netting, corrugated iron and kitchen appliances. Quotations should be given c. i. f. Norway. Payment against documents. Agencies are also desired. Correspondence may be in English. References.

30720.—An agency is desired by a man in Belgium for the sale of cooking utensils, hardware, etc. Correspondence may be in English.

30722.—A merchant firm in Spain desires to purchase cooking and heating stoves (gas, oil, wood, coal and electricity), household goods and kitchen utensils, hardware, machine tools, building material, paints and varnishes, and wire and wire screening. Quotations should be given c. i. f. Spanish port. Payment, cash against documents. Correspondence should be in Spanish. References.

30724.—A builder and contractor in Switzerland desires to import galvanized sheet iron, sheet iron for boilers, and welded piping with fittings for hydraulic plants. Correspondence should be in French. Reference.

30729.—An agency is desired by a man in Italy for the sale of hardware. Quotations should be given c. i. f. Italian port. Correspondence should be in Italian or French. References.

30731.—A company in England desires to purchase enamel stewpans, deep bowls, shallow basins, colanders, teapots, coffee pots, pie dishes, pails and covers, saucepans, mugs,

ladles, strainers, and all kinds of household enamelware. Quotations should be given c. i. f. English port or f. o. b. New York. Payment, cash against documents, or 90 days' acceptance. Reference.

30732.—A Belgian business man who is about to return to Belgium is desirous of making connections with manufacturers to represent their lines in that country. References.

30734.—A firm in Belgium desires to secure agencies for the sale of hardware. Correspondence should be in French.

30747.—A merchant in Paraguay desires to secure agencies for the sale of hardware. Correspondence may be in English.

30752.—A merchant in Belgium desires to secure an agency and consignments of hardware, finished pieces for coach maker and blacksmith, necessary for agricultural work, such as carriage hardware and forge equipment, and tools for farm work. Quotations should be give c. i. f. Antwerp. Correspondence may be in English. Catalogues in French are requested. References.

30755.—An engineer in France desires to secure the representation of an American firm as an agent or technical and commercial assistant for the sale of tools of all kinds. Correspondence may be in English.

30792.—The purchase of safety razors and shaving specialties is desired by a firm in England. Quotations should be given c. i. f. English port, or f. o. b. New York. Reference.

30793.—A firm in Norway desires to purchase tool handles, iron goods, fishing equipment, sanitary ware, bicycles, and kindred articles. Correspondence may be in English.

30762.—A firm in India desires to secure connections with exporters and manufacturers of cutlery, hardware, etc., and requests that samples be forwarded. References.

30769.—A firm in Turkey desires to secure agencies and requests that samples, price lists, and catalogues be forwarded covering paint and distemper, locks, hinges, bolts, sash fasteners, and other building hardware. Correspondence may be in English.

COMING CONVENTIONS.

The American Hardware Manufacturers' Association, Marlborough-Blenheim Hotel, Atlantic City, New Jersey, October 15, 16, and 17, 1919. F. D. Mitchell, Secretary, 4106 Woolworth Building, New York City.

The National Hardware Association, Marlborough-Blenheim Hotel, Atlantic City, New Jersey, October 15, 16, and 17, 1919. T. James Fernley, Secretary, Philadelphia, Pennsylvania.

National Retail Hardware Secretaries, Hotel La Salle, Chicago, Illinois, October 21 and 22, 1919.

Hardware Mutual Fire Insurance Secretaries, Hotel La Salle, Chicago, Illinois, October 23 and 24, 1919.

Automobile Accessories Branch of the National Hardware Association, Hotel Sherman, Chicago, Illinois, December 8 and 9, 1919. A. H. Nichols, Chairman, Detroit, Michigan.

Oklahoma Hardware and Implement Association, Oklahoma City, Oklahoma, December 9, 10, and 11, 1919. W. B. Porch, Secretary, Oklahoma City, Oklahoma.

Pacific Northwest Hardware and Implement Association, Davenport Hotel, Spokane, Washington, January 20, 21, 22 and 23, 1920. E. E. Lucas, Secretary, Hutton Building, Spokane, Washington.

Oregon Retail Hardware and Implement Dealers' Association, Imperial Hotel, Portland, Oregon, January 27, 28, 29 and 30, 1920. E. E. Lucas, Secretary, Hutton Building, Spokane, Washington.

Kentucky Hardware and Implement Dealers' Association, the Armory, Louisville, Kentucky, January 28, 29, 30, and 31, 1920. Hardware, Implement, and Vehicle exhibit. J. M. Stone, Secretary, Sturgis, Kentucky.

Nebraska Retail Hardware Association, Lincoln, Nebraska, February 3, 4, 5, 6, 1920. Nathan Roberts, Secretary, Lincoln, Nebraska.

Wisconsin Retail Hardware Association, Milwaukee, Wisconsin, February 4, 5, and 6, 1920. P. J. Jacobs, Secretary, Stevens Point, Wisconsin.

Iowa Retail Hardware Association, Auditorium, Des Moines, Iowa, February 10, 11, 12 and 13, 1920. A. R. Sale, Secretary, Mason City, Iowa.

Michigan Retail Hardware Association, Hotel Pantlind, Grand Rapids, Michigan, February 10, 11, 12 and 13, 1920. Exhibit in Furniture Exhibition Building. Arthur J. Scott, Secretary, Marine City, Michigan.

Pennsylvania and Atlantic Seaboard Hardware Association, Bellevue Stratford Hotel, Philadelphia, Pennsylvania, February 10, 11, 12, and 13, 1920. Exhibition in Philadelphia Commercial Museum. Sharon E. Jones, Secretary, 1314 Fulton Building, Pittsburgh, Pennsylvania.

North Dakota Retail Hardware Association, Grand Forks, North Dakota, February 11, 12 and 13, 1920. Hardware exhibit in Grand Forks Municipal Auditorium. C. N. Barnes, Secretary, Grand Forks, North Dakota.

Minnesota Retail Hardware Association, St. Paul Auditorium, St. Paul, Minnesota, February 17, 18, 19 and 20, 1920. H. O. Roberts, 1030 Metropolitan Life Building, Minneapolis, Minnesota.

New York State Retail Hardware Association, Onondaga Hotel, Syracuse, New York, February 17, 18, 19 and 20, 1920. Exhibition in State Armory. John B. Foley, Secretary, 607 City Bank Building, New York City.

Missouri Retail Hardware Association, St. Joseph Auditorium, St. Joseph, Missouri, February 17, 18, and 19, 1920. F. X. Becherer, Secretary, 5136 North Broadway, St. Louis, Missouri.

New England Hardware Dealers' Association, Mechanics' Building, Boston, Massachusetts, February 23, 24, and 25, 1920. George A. Fiel, Secretary, 10 High Street, Boston, Massachusetts.

Ohio Hardware Association, Hotel Gibson, Cincinnati, Ohio, February 24, 25, 26 and 27, 1920. James B. Carson, Secretary, Dayton, Ohio.

Stove Founders' National Defense Association, Boston, Massachusetts, May 11, 1920. R. W. Sloan, Secretary, 826 Connell Building, Scranton, Pennsylvania.

National Association of Stove Manufacturers, Boston, Massachusetts, May 12 and 13, 1920. Robert S. Wood, Secretary, National State Bank Building, Troy, New York.

RETAIL HARDWARE DOINGS.

Alabama.

The Solomon and Mitchell Hardware Company, Headland, has been incorporated for 15,000 by R. S. Solomon, W. A. Mitchell and J. J. Espy.

Arkansas.

The Dan Miller Hardware Company, Fort Smith, has been incorporated for $25,000. The incorporators are Dan Miller, B. A. Smith, George W. Moss and C. J. Aplmark.

Iowa.

The Corley and Meade hardware stock at Brighton is now the Corley and Bristow store.

Kansas.

J. A. and F. P. Youngmeyer have bought the hardware store at 918 East Douglas Avenue, Wichita, formerly belonging to McLaughlin and Graham.

E. A. Steel of Parker has bought the W. H. Anthony Hardware Store at Williamsburg and will move there shortly.

The George Trett Building in Junction City has been sold to the Waters Hardware Company.

C. I. McGee has bought the G. Z. Price hardware store at Richmond.

Minnesota.

E. Taylor has sold an interest in his hardware business at Morristown to Leslie Beardsley.

F. E. Ebner and A. T. Dumont have bought the August Marsch hardware and implement store at Wabasha.

Missouri.

The Osborn Hardware Company, Gallatin, has disposed of its stock of hardware, implements, etc., to C. K. Connell.

J. J. Eggert has purchased the interest of U. G. Helms in the Eggert Hardware Company at Kirksville.

The Wells Hardware Company, Braymer, has sold its stock to Roy Mansur and Charley Van Trump.

Nebraska.

Alberts and Holms have sold their hardware store at Cook to Jones and Bush, who have moved the stock to Tecumseh.

John Drewes will conduct a hardware business at Cortland.

North Dakota.

Dittus Brothers, Elgin, have suffered a fire loss of $6,500.

Oklahoma.

A. T. Morris will open a store at Coalgate.

C. B. Gump has bought a controlling interest in the Southern Hardware Company at Tulsa.

I. U. Smith has purchased the hardware store of C. Kail and Sons at Bessie and is moving it to Clinton.

N. M. Garret will open a hardware store in Salina.

R. S. Goffe and P. E. Goffe have bought the Pal Hardware Company's stock at Sulphur.

South Dakota.

J. W. Schliemann has sold his hardware store at Winner to I. O. Clem.

Texas.

The Citizens Hardware Company has been organized at San Angelo with a capital of $35,000.

The Liberty Hardware and Furniture Company, Canton, has been chartered with a capital of $10,000 by D. S. McPhall, H. L. Lybrand and H. P. Clack.

Washington.

The Whiton Hardware Company, Seattle, suffered a severe loss from fire, the damage being estimated at several hundred thousand dollars.

ADVERTISING CRITICISM AND COMMENT

Helpful Hints for the Advertisement Writer

For the purpose of discussing complex objects, greater facility is gained by first treating them as a unit and then analyzing their component parts. In discussing an advertisement the size of the one herewith reproduced from the *Spokane Daily Chronicle*, Spokane, Washington, this procedure is the most expedient. As a whole, this advertisement of the Holter Hardware Company, Spokane, Washington, has many strong points. From the trade-mark at the top down to the reminder in the box at the bottom, the layout shows skill and judgment.

To start with the trade name and slogan of a nationally advertised commodity, is taking advantage of the public's familiarity with that article. Then, by setting the news value of the advertisement, namely, the notice of the short duration of the sale and demonstration, in as prominent a place as it occupies, the force of the urge for immediate purchase by the prospective consumer, is emphasized. "Absolutely free," with the illustration to the right of a complete cooking outfit, explains the premium better than the number of words feasible in the same space, without the illustration. In stating the fact that there are "five vital reasons for owning a Monarch now," direct appeal to the individual reader would strengthen the arguments following it.

Price is the slip in many a sale. Stating that the goods are sold $10 to $15 lower than exactly the same article in any big western city, takes the place of price in this advertisement. Prominence should be given this vital factor in the way of bold-faced or larger type. Taking into consideration the relative lowness of price, the reader will be prompted to buy within the specified time in order to avail himself of the premium. Repetition of the short duration of the premium offer helps keep uppermost in the mind of the prospective customer the advantage of immediate purchase. This is a well-designed advertisement and shows careful preparation.

SYSTEMATIC ADVERTISING IS BEST.

That system is an essential to the healthy life of business, is a proved fact. Advertising should be done in a systematic manner. Delving into advertising by chance or when a profitable vein comes on renders the effort spent almost worthless. Like the proverbial raindrops on the stone, a meager but persistent policy of advertising is more effective than a few, straggling bursts of enthusiastic advertising and an abrupt stoppage because of no immediate results.

Remember that Opportunity is a constant reader of advertisements.

HEATING AND VENTILATING

THE RELEASE OF ENERGY LOCKED IN MATTER WILL REVOLUTIONIZE METHODS OF HEATING.

Heat may be defined as a form of energy in action. It is a phenomenon connected with every process of the universe. It presents the oldest and one of the most baffling problems of control in the industries of the world. Scientists are tireless in their studies of this central factor of life and work. Of late years startling progress has been made by those engaged in investigations of the mechanics of heat. The present status of knowledge of the subject and of the probable developments is set forth by the great English physicist, Sir Oliver Lodge, in the following article:

A pinch of coal dust or a thimbleful of oil represents at present the most portable form of power. If the whole of the energy resulting from these when combined with oxygen could be really utilized they would yield quite a considerable store.

An ounce of oil completely burnt would heat between six and seven pounds of water from freezing to boiling point, which is the equivalent of 410 foot-tons. A ton falling a height of 440 feet would generate the same amount of heat.

An ounce of coal completely burnt would yield slightly less energy. A spoonful of nitroglycerin, again, represents a considerable store of energy, though of rather a violent and intractable kind.

But is there any kind of energy locked up not in the molecule nor in the inter-action between the molecules, but in the actual structure of each atom? Does a single atom of matter contain energy by reason of its constitution? And if so, is there any means of getting at it?

Previous to the discovery of radium the question could hardly have been asked. The answer is now known. In radioactive substances there certainly is a store of atomic energy, and some of the energy is liberated by the emission of flying particles flung off from time to time whenever the atom is degenerating or passing from a more complex to a more simple form.

And this emission of energy is very great. When it was first observed that a few grains of radium was continually giving off a great deal of energy and yet not disappearing, some scientific men, even Lord Kelvin himself, spoke of it as a sort of miracle. The stuff burned.

It soon became clear, however, that there was no flaw in the law of conservation of energy. The stuff certainly possesses and certainly loses all the energy it emits, but it loses very little weight. The disappearance of a single grain of matter out of, say a pound, is only detectable by careful weighing, but the power remitted during the disappearance of a grain would be enough to raise the temperature of a ton of water from freezing to boiling point.

We must remember, however, that not such effect would be produced even by a pound of radium in any reasonable time, for it would take a year to lose a grain.

And so the power is diluted down; there is nothing violent about it, and we know no means of hastening it nor indeed of retarding it either.

It is a remarkable fact that whether the bit of radium be made red hot in a furnace or cooled hundreds of degrees below zero by liquid air, its rate of disintegration remains practically constant. People sometimes speak of radium as if it were unique. Not so. It is a striking member of a class, and it serves well to illustrate the properties of that class.

Every now and then an atom of radium explodes or fires off a projectile—what is called an "A" particle. The projectile bears to the residue of the atom something of the same proportion that a shot bears to a gun. It is like a two ton gun firing a 100-pound shot.

Only now and then does a radium atom get to this explosive stage. For every one that thus exerts itself in the course of a year there are about 3,000 which remain quiescent for that period.

But directly one shot has been fired, the rest of that particular atom does not settle down into quiescence again till it has fired off four more, converting itself each time into a different element.

Some of these shots follow each other quite quickly, barely giving time to the experimenter to examine the properties of the intervening substances. Yet thse substances are real elements, with chemical reactions of their own and with a characteristic spectrum. Their peculiarity is that they are short lived.

The greatest energy per unit weight of combustible material is the burning of hydrogen in oxygen. This emits heat to the value of 4,000 units of heat for every gram of water formed by the combination. But by the time that a gram of radium has gone through its changes a million times this quantity of energy would have been emitted. Let it not be supposed, however, that only the atoms of radioactive substances possess it, some more, some less; but for most atoms the energy is all locked up in their intimate structure and is quite inaccessible.

The radioactive elements are those which do not keep the energy completely locked up. Once an hour one out of thirty million atoms goes off with violence and continues to fire at known, though not quite regular, intervals five times till it becomes quiescent again. It thus gives away the secret of a vast store of energy.

Every atom is a complicated structure, a region of law and order.

The point for present consideration, however, is not the rate at which different elements choose to give out

their store of energy, but the existence of this store and its marvelous abundance.

The particles shot off from radium are shot with a speed quite amazing—about one-fifteenth that of light. To get some notion of this speed we may compare it with the highest speed of a bullet. During the time taken by a rifle bullet to fly without resistance from the muzzle of a rifle to a target 300 yards away the "A" particle simultaneously shot off from radium would have traveled 3,000 miles, from London to New York. The time needed is only a quarter of a second.

And as to the energy of such a projectile, it is not much in itself, because its mass is so minute, but weight for weight it is four hundred million times more energetic than a bullet.

But, it may be said, radium fires them off so seldom. Each projectile is violent enough, truly, but you say there is only one out of 3,000 which explodes in the course of a year. That is so, but think how many atoms there are in any visible speck of substance.

Take a milligram of radium—that is, take one-seventieth of a grain—and ask how many projectiles such as we have described are fired off by it each second. The number is no less than thirty million, even from radium itself, and the number of projectiles is really five times as great as this if the products of disintegration are not allowed to escape.

Thirty million projectiles, each with a fifteenth of the speed of light, come away from a milligram of radium every second, yet the speck will last a thousand years before it is half exhausted.

Chemical combination is not in it with energies such as this. And this is the kind of energy which is locked up and at present inaccessible in every atom of matter.

A little arithmetic would enable us to paraphrase the late Sir William Crookes and say that if all the energy in an ounce of matter could be extracted and fully utilized it would be enough to lift the German navy and pile it on the top of Ben Nevis.

Sir Ernest Rutherford reckons that the gaseous emanation primarily given off from radium after firing its first shot—this emanation being itself a chemical element called niton—is so spontaneously active that it actually does radiate energy at the rate of 10,000 horsepower per pound.

Undoubtedly, if the progress of discovery enables us to get at and utilize the energy locked up in a ton of ordinary matter per diem, no further motive power would be needed.

And if, further, we found ourselves able to liberate any considerable portion of such energy in a short period the explosive violence would be such that the very planet would be unsafe.

It is to be hoped that no such facilities will fall to the lot of an enterprising scientific nation until it is really and humanely civilized and is both willing and able to keep its destructive power in check. Humanity is not ripe for every discovery, but in due time, and when it can be applied to useful and beneficial ends, I doubt not some such power as that here foreshadowed will be attained.

Success doesn't "happen." It is organized, preempted, captured by concentrated common sense.

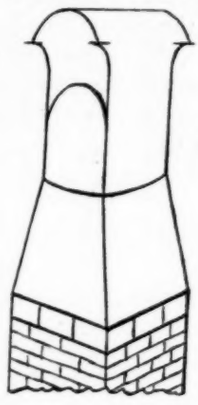
BUYS LAND FOR NEW BUILDINGS

Land has been purchased by the Donald B. Howard Heater Company of Des Moines, Iowa, upon which to erect additions to its plant. In order to care for the substantial developments of the business, an increase of capital stock has been decided upon by the directors and stockholders of the Company. This concern was formerly known as the Wrot Iron Heater Company of Des Moines, Iowa. It was founded six years ago by Donald B. Howard with a modest working capital. Its expansion to the present proportions is a tribute to the ability and determination of its personnel.

ASKS LIGHT ON CHIMNEY PROBLEM.

To American Artisan and Hardware Record:

Will you please tell me what kind of a chimney top would be the best to put on a chimney that is about ten feet distant from a church steeple? The chimney is now equipped with a sheet metal top shaped like the enclosed sketch, but it does not draw unless the wind is from a certain direction.



Drawing of Chimney Top.

In theory, at least, this form of top should give satisfactory service no matter from what direction the wind comes. In fact, however, it does not do the work under all conditions.

No doubt, many of your readers have encountered similar difficulties in the course of their experiences. I feel sure that they will not hesitate to give me the benefit of any practical solutions at which they may have arrived in dealing with the problem.

Yours truly,

Thomas E. Garvice.

Mobridge, South Dakota, September 29, 1919.

PROFFERS HELPFUL ADVICE.

In the current issue of its instructive house organ, called *Furnace Installation*, F. Meyer and Brother Company, Peoria, Illinois, proffers helpful advice to sheet metal contractors in these words: "Again we say, cultivate side lines! Turn every business possibility to profit! You know that there are men in your trade territory who dislike to get up of a winter morning in a cold house and go down to start the warm air heater.

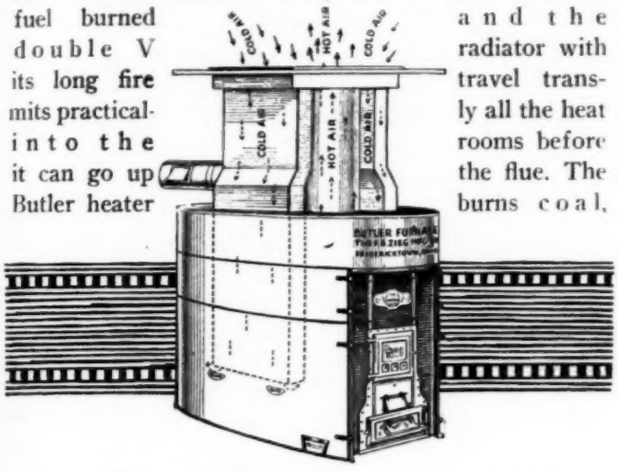
"Go after them and they'll buy a good heat regulator. Tell them how they can avoid this daily agony; how they can save coal by not letting the house get overheated—make a man see these things and he'll want a warm air heater regulator so badly that he'll say 'Put it in.'

"There are other things kindred to your business that offer a profit to you for their handling. Look into the auto radiator repair game; run down repairs to spouting, gutters, tin roofs; watch for metal ceiling

jobs and every other means of keeping your force busy. Busy-ness makes business—and business makes money!"

HAS AN IMPROVED HEATING UNIT.

The particular feature of the Butler Pipeless Warm Air Heater, shown herewith, is the improved heating unit. The makers, The F. B. Zieg Manufacturing Company of Fredericktown, Ohio, say that the unusual fire box extracts every unit of heat from the fuel burned and the double V radiator with its long fire travel transmits practically all the heat into the rooms before it can go up the flue. The Butler heater burns coal,



Butler Pipeless Warm Air Heater, Made by The F. B. Zieg Manufacturing Company, Fredericktown, Ohio.

wood, or slack. It burns wood particularly well as the shape of the fire box allows the wood to lie down in the best position for burning, instead of standing on an end.

The heater is provided with a cap which can be removed in extreme weather to keep the basement contents from freezing. The smoke pipe can be run up to any height, directly through the casing or in any direction desired, wherever convenient. There is a special slide door in the rear of the heater for the removal of anything that may have accidentally been dropped into the register. The F. B. Zieg Manufacturing Company, Fredericktown, Ohio, will send particulars and their literature to anyone asking for them.

BECOMES SETTLED IN NEW PLANT.

The Green Foundry and Furnace Works, makers of warm air heaters and fittings, are now fully settled in their new plant on Elm Street, between Third and Fourth Streets, Des Moines, Iowa. Their new buildings occupy a ground area of 158 x 158 feet and they have a switch track giving connections with all the railroads in Des Moines. The tallest of the buildings is four stories high, 45 x 45 feet. Another of the structures is 90 x 158 feet and two stories in height. Another is two stories, 60x 90 feet; and the moulding room is 110 feet square. The entire plant is equipped with numerous labor-saving contrivances. The foundry is modern in every detail, having a monorail system as well as cranes to lift heavy castings. The officers of the Green Foundry and Furnace Works are: Frank O. Green, president; H. O. Woodward, vice-president; and Shirley A. Percival, secretary.

INCREASES STOCK AND INCORPORATES.

One of the oldest New England warm air heater manufacturers, The Magee Furnace Company, Incorporated, of Boston, Massachusetts, has increased its capital stock to $600,000, and is incorporated under the name of The Magee Furnace Company. The stock is proportioned in 100 shares of $100 par value. As a result of the augmenting of capital and incorporation a larger output is planned. The officers of The Magee Furnace Company, Incorporated, have been with that company for many years. They are: Alfred E. Stockbridge, president and treasurer; Alfred E. Perrin, Clerk, and C. F. Wiley.

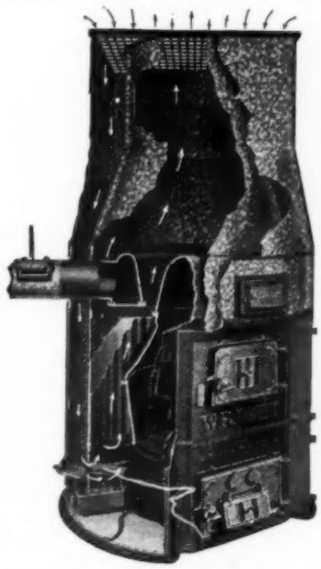
OUTPUT OF ANTHRACITE IS LARGER.

The production of anthracite coal continues to increase, according to reports of shipments made to the Anthracite Bureau of Information at Philadelphia. The shipments for August amounted to 6,144,144 gross tons, as compared with 6,052,334 tons in July, which in turn had the record for largest shipments since October, 1918.

Compared with August, 1916, the latest normal year in the anthracite trade, the shipments last month showed an increase of a little over 600,000 tons, or about 11 per cent. For the first five months of this coal year the shipments have amounted to 28,752,699 tons, as compared with 26,678,333 tons for the corresponding period of 1916, an increase of 2,074,366 tons.

HAS SELF-SELLING FEATURES.

The many superior qualities that are involved in the construction of the Mahoning warm air heaters give them a self-selling force, say the Mahoning Foundry Company, Youngstown, Ohio, manufacturers. In the manufacture of this warm air heater cast iron is used in all parts. No sheet iron enters into the construction. The base is cast in one piece. Proper air circulation is said to be insured by the scientifically correct, large casing diameters. An exclusive feature advanced for the Mahoning warm air heaters is the smoke pipe or diving flue. It is of large size and proportions and is secured to the radiator in a way said to be exclusively a feature of this make of warm air heater. Catalogues describing the complete line of these warm air heaters can be had by writing The Mahoning Foundry Company, 618 Poland Avenue, Youngstown, Ohio.



Warm Air Heater, Made by The Mahoning Foundry Company, Youngstown, Ohio.

DRYNESS OF AIR AFFECTS TISSUES OF NOSE AND LUNGS.

Excessive dryness caused by the drying of air in heating is detrimental to household effects, particularly, woodwork, ivory pieces, etc. As a remedy against this many devices have been constructed. The most common method used to bring about humidity in order to preserve articles of furniture is the placing of bowls filled with water in various parts of the room. The results of these makeshifts are always disappointing. Owing to the amount of water contained in the bowls, under prevalent conditions, the humidity of the air is materially affected. It requires several gallons of water per day in an ordinary house to bring the relative humidity up to 50 per cent.

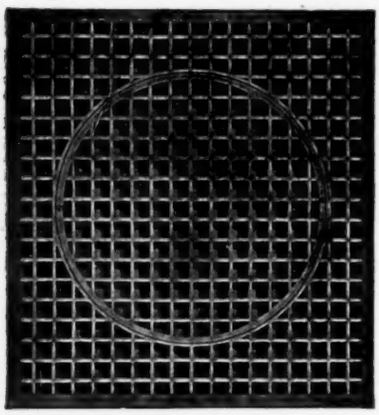
The most important consequence of a dry atmosphere in living rooms is on the human organism. The action is a direct one. The meager humidity of the air affects the mucous membrane lining of the respiratory tract, chiefly of the nose and bronchial tubes. Constant irritation on these parts is produced. Healthy lungs are affected as well as diseased ones.

The results to the lining of the nasal cavity is the most marked. Catarrh is commonly caused by lack of proper humidity. Young children and babies are the heaviest sufferers. Naturally having tender tissues, the effect is more ravaging.

An example of the direct benefit of proper humidity to the health, is the "Bronchitis Kettle." This is a device used to supply vapor to the air of those suffering from acute bronchitis. Though a homely affair, the immediate relief obtained is striking. Substantial proof is gained from this of the importance of the humidity of the air in dwelling places, confirming the need of regulating this part of ventilation.

GIVE SATISFACTORY SERVICE.

The Tuttle and Bailey Manufacturing Company of New York City and Chicago make the duplex gratings for pipeless warm air heaters, shown in the accompanying illustration. They are designed to give double the amount of service of the old single type of grating. Continuous experiments by this Company have brought these gratings up to their present high standard. They are durably made of excellent material. They come in sizes from 20 x 22 to 45 x 45 and will correspond to collar sizes from 14 to 36. With the aid of these duplex gratings, pipeless heaters will be found to give much better service and dealers will secure price lists and further information by addressing the Tuttle and Bailey Manufacturing Company, 52 Vanderbilt Avenue, New York City, and Chicago, Illinois.



Duplex Gratings for Pipeless Heaters, Made by Tuttle and Bailey Manufacturing Company, New York City.

INCREASES FACILITIES OF PLANT.

A steady enlargement of business with every indication of permanency has made it imperative for the Lennox Furnace Company, Marshalltown, Iowa, to add a 100x100 feet structure to the main building of its plant. Modern appliances for greater efficiency in production and provisions for the health and comfort of the worker are embodied in the addition to the main building.

TELLS OF AIR CLEANING METHODS.

An article in a current technical magazine by S. R. Lewis and Dr. E. Vernon Hill of Chicago, Illinois, says that ever since air has been handled, various forms of dry filtering or screening devices have been used, as of cotton, felt or cheesecloth, or fine mesh screens. All of these were found very rapidly to clog with dirt, stopping the air passages, and, when subjected to the least jar, to pollute the passing air with a cloud of the accumulated foreign matter. With any filtering device having small interstices, where there is any great amount of moisture present, the filter will become very quickly obstructed. For this reason, in any continuous process, we believe that dry cleaning gives results little better than no cleaning at all.

The original air washer was simply a rainlike stream of cold water falling through the airway of a ventilating system. Some of the particles of dust (by dust is meant soot and all other foreign matter) were knocked down to the wet floor by the falling water, and were washed away. Some of the dust stuck to the wet side walls, but most of it passed on. Wire baskets or screens filled with coke and subjected to a spray of water were tried, and while they arrested much of the dirt, the dirt stayed in the coke, and wonderful crops of bacteria would grow in the favorable conditions created and appalling odors would emanate from the foul coke beds. Gradually a process and devices were developed until the present type was evolved, consisting of a water spray followed by metal eliminators intended, by sudden changes in direction of the air current, to catch the drops of water carried away from the spray chamber by the air current. The water is circulated by a pump, through the sprays, falling into a tank below them, from the tank through screens, intended to keep dirt from clogging the spray heads, to the pump, and back to the sprays.

MUST MAKE SKILLFUL DIAGNOSIS.

In advertising there must be proper diagnosis, right understanding, and unusual skill. First of all, a thorough knowledge of the article for sale must be had. Then, there is needed a working acquaintance with the field to be advertised. To each community a certain appeal would have more weight. After this must follow an uninterrupted, well directed stream of advertising. Advertising is one game that you can not quit in the middle and come out winner.

PRACTICAL HELPS FOR THE TINSMITH

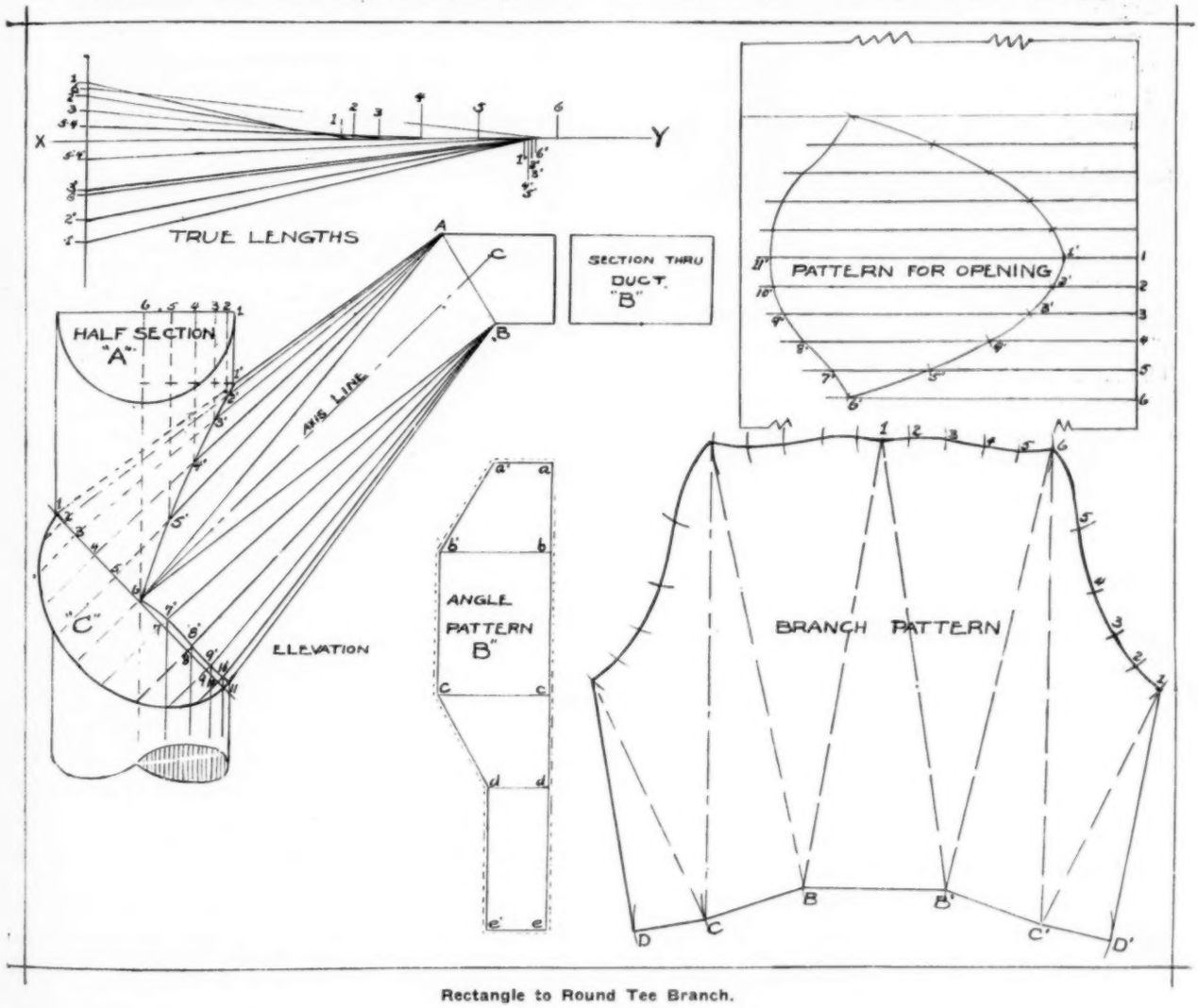
RECTANGLE TO ROUND TEE BRANCH.

By O. W. Kothe.

Some sheet metal workers meet with all kinds of difficult geometrical problems. In fact, they are always on the lookout for them and will go considerably out of the way to learn of a new design to lay out, or method of development. By far the majority are not so fortunate. They so often remind us that they never have seen anything out of the general run of work. The fact is they are blind to them; they do not exist for them, and, therefore, such workmen always remain underlings to everybody else.

Much of the hard luck tales is merely poverty of thought, caused by a lack of mental discipline. Most every one of us becomes married to the routine work for a while, until we can shake it off on some one else who glories in it, while we reach out for green pastures and vineyards yet unplucked. That's how the trade enjoys so many complicated problems to lay out. So it's the fellow who stays in the rut and shouts his abilities down a well and is only rewarded by his own echo.

So in this problem of the annexed diagram we have where a square cornered pipe is to intersect with a round stand pipe. If we continued the rectangle horizontal duct it would tap into the round pipe on a right angle. This we can not permit, and hence the transition is designed.



Rectangle to Round Tee Branch.

First draw the elevation for round pipe, and from a convenient distance draw the axis line of branch to a 45 degree angle, as C-6. Bisect the miter as A-B and draw section "B". Also draw half section "A" and treat the quarter in equal spaces. Drop lines from these points indefinitely. Now at right angles to axis C-6 draw a base line as 1-11 and about it describe the half section "C", holding it to the same diameter as section "A". To give this a good taper, it will form an oval section. This must be governed by what the work will bring out, and the desires of the workman.

After this, finish the elevation drawing and where lines intersect, the miter line is traced. Observe that

this saves a plan view and enables us to develop the true lengths by setting the elevation lines on the line X-Y and picking the differences between sections "B"-"A" which gives us our rise for the slant line of true lengths.

To set the patterns off, first treat the angle B", by the projection method. Next set out the pattern for opening for round pipe. This is done by picking the girth from "A" and setting as 1-6 in pattern. With dividers we pick lines 1-1'; 2-2'; 3-3', etc., from elevation and setting them off on lines in pattern. This gives points 1'-2'-3'-4', etc., to 6'-11' and this line represents the girth spaces while developing the pattern for branch. The branch pattern requires the usual triangulation by starting with the heel and working around the throat. Observe B-B' is made equal to section "B" and B'-1-B' is equal to line 1'-1' of the bottom diagram of true lengths. Follow the patterns up until finished and allow edges and try it out.

MILWAUKEE SHEET METAL MEN HOLD REGULAR MONTHLY MEETING.

The wisdom of making haste slowly is fully appreciated by the members of the Master Sheet Metal Contractors' Association of Milwaukee, Wisconsin. This was evidenced in their regular monthly meeting, Thursday October 2, 1919, when the question of a school for apprentices came up. The matter was discussed from many angles and then referred back to the committee to be taken up again with Mr. Scrimshaw of the Wisconsin Industrial Commission. After further consultation with him, the committee is to make a report to the next meeting for final action.

In the absence of Secretary O. A. Hoffmann, the chair called upon Paul L. Biersach to perform the work of his office for the meeting.

Member Millen advised the members that another bowling contest among the various building crafts was under consideration. He inquired whether or not there were enough members of the Milwaukee Sheet Metal Contractors' Local willing to form a bowling team and take part in the games of the building league. After some discussion, it was decided to drop the matter for the time being.

SHOP TRAINING IMPROVES QUALITY OF WORKMANSHIP AND PRODUCT.

As a factor in the solution of the problems of adequate production, industrial training is of first importance. Enterprising manufacturers recognize this fact and are acting in accordance with its significance. No shop is too small and no factory too big for the application of the principle. A recent illustration of the benefits of such training is furnished by the Wilson Foundry and Machine Company, Pontiac, Michigan, which has established the Glynn system in its plant. Frank L. Glynn, formerly secretary Wisconsin Board of Industrial Education, founder of the system, has proved that workers may learn a trade in much shorter time than under the old apprenticeship methods. The undertaking in the Wilson plant follows the lead of war training, in which it was found it was more important to develop efficiency among the workers in any industry than it was to make new discoveries of new needs of manufacturers, installation of new machinery and the maintenance of factory equipment. In fact, the war experience has proven that 90 per cent of manufacturing equipment is labor; and it required just such an emergency as was created by our entrance into the great world war to focus the attention of industry upon the training of labor and the maintenance of labor efficiency.

The most important discovery in the realm of labor training in the last two years has been that the men and women can be instructed in the basic trades in a reasonably short period by intensive application. Following upon this discovery has come the further revelation that workers want to be trained. Shop training is purely an economic proposition. There is not a man or woman in the Wilson employ who can not earn more money and become a better mechanic if he makes up his mind to do so. The Training Department, which will be installed as a permanency in the Wilson Foundry and Machine Company, provides that opportunity for advancement.

Shop training in a foundry, so far as we know, is an absolutely new undertaking. The Wilson Company opens its Training Department with the positive statement that it will teach any man any of the foundry arts he may wish to learn. Foundry training, as it will be undertaken by the Company, disregards tradition which requires long apprenticeship in coremaking and molding. It is a further step in advance in this, that the beginner is enabled to make a living wage while he is learning.

Without going further into the economics of the Training Shop idea, just consider these two propositions:

1. That a man or woman can learn any of the occupations in the Wilson Foundry in a period of time not more than three to four weeks and in as short a time in some of the simpler operations as ten days.

2. That while he is being instructed in an occupation he will be paid at a fair rate consistent with the living requirements of the day and locality of his employment.

The foundry Training Shops will be located in the new foundry addition. The machine shop section of the Training Department will be located in the east end of the machine shop.

Every production executive in the foundry is committed to the Training Shop idea. The learner who enters the Training Shop, as well as the worker who goes into it to learn a higher paying occupation, should and will feel that the entire organization is interested in his success. There is to be nothing visionary about the operation of the Training Department. The learner will be known by his works and his work will be valued accordingly. The Training Shop idea admits of no backsliding. It offers beginners, every man and woman engaged in production, opportunity for advancement. It presents to each in concrete form the plain statement that there is no limit to his earning capacity. The Training Shop merely affords the opportunity for advancement.

SAYS THAT TINNERS ARE IN DEMAND IN THE SOUTHERN OIL FIELDS.

Reports from the oil fields of Oklahoma and Texas indicate a thriving condition of affairs in the sheet metal trade. Henry W. Scott, one of the subscribers of AMERICAN ARTISAN AND HARDWARE RECORD, writes from Hobart, Oklahoma, that there is a big demand for competent sheet metal mechanics in the oil well country.

PRODUCES POWERFUL PUNCHES.

The Machine Appliance Corporation, 351 Jay Street, Brooklyn, New York, makes the Samson Punches, shown in the accompanying illustrations. The Number 1 Hand Punch has drop forged steel jaws, the throat being 1⅜ inches deep and the opening between the dies being 1¼ inch. It will punch sheet iron and soft steel up to 20 gage and paper, cardboard, leather, etc., up to ¼ inch thickness. Extra interchangeable punches and dies are furnished in sets running from 1/16 inch to ¼ inch in diameter.

Samson Number 1 Hand Punch, Made by the Machine Appliance Corporation, Brooklyn, New York.

The Number 3 Samson Bench Punch will punch 12 gage soft steel. It is a powerful punch for bench use on sheet iron, brass, tin, etc., and is good for bolt holes in shims, gaskets, packing, etc. The main base is cast iron, the yoke and links being semi-steel. The 14 inch tubular wrought iron handle is detachable. The throat opening is ¾ inch and the throat depth is 3 inches. This Punch is intended for work beyond the capacity of the Samson Hand Punches and is a good tool for sheet metal works and allied trades. Circulars and printed matter, together with prices, may be obtained by addressing the Machine Appliance Corporation, 351 Jay Street, Brooklyn, New York.

Samson Number 3 Bench Punch, Made by the Machine Appliance Corporation, Brooklyn, New York.

KEEPS CHIMNEYS CLEAN OF SOOT.

The Sterling Foundry Company, Sterling, Illinois, are makers of a revolving chimney top whose trade name, the manufacturers say, is most aptly expressive of its worth—"Best." Being made of all cast iron it is of unquestionable durability. The vane is of steel. Ball bearings facilitate the movements of the vane to a great degree. By installation of it on chimneys, cleanliness is assured. Installation is comparatively easy. Chimney Caps are also made by The Sterling Foundry Company. They come in three sizes, and are made of cast iron. The Cap protects the masonry and forms a solid base for pipe extension. The cap is held in place by durable cast iron legs which project downward to the second course of bricks on the inside of the chimney. Mortar is not needed to fasten the legs. A simple adjusting of the legs to fit the flue and a tightening of the bolts furnished, set the cap in place. Weather has no setbacks for installation. Prices, sizes and other desirable information may be obtained by inquiry to The Sterling Foundry Company, Sterling, Illinois.

PREVENTS SNOW FROM SLIDING.

Illustrated herewith is a patented device made by the Berger Brothers Company, 229-231 Arch Street, Philadelphia, Pennsylvania, which is designed to dispense with snow rails or gutters formed on the roof to prevent snow sliding. The device is clamped fast to the roof by clinching the lugs through the standing seam. Installation is very easy. It is made of the best malleable iron. Beside this especial product, the Berger Brothers Company manufactures and sells a complete line of tinners' and roofers' supplies. Thought of precision has prompted this company to adopt the motto: "Everything Must Be Right." A letter to the Berger Brothers Company, 229-231 Arch Street, concerning its products will receive prompt and satisfactory attention.

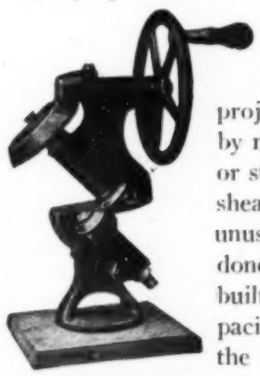
Standing-Seam Roof Snow Irons, Made by the Berger Company, Philadelphia, Pennsylvania.

CARELESSNESS LEADS TO DISORDER.

To skim over small problems carelessly, is to leave yourself open to the fallacy of thinking that big things have nothing to do with small matters. Everything, no matter how small, is a composition of minute particles. Big business is the composition of much effort and the incessant application of brains. Do small things in a haphazard manner and you will, in time, find yourself in a big mess of disorder.

HELPS REDUCE LABOR COSTS.

The Throatless Shears, illustrated herewith, is hand propelled. The tool weighs 35 pounds. There is no limit to the size of metal that can be cut by this machine, owing to the absence of projections. When cutting is done by means of it there is no buckling or stretching of material. Irregular shearing, circular work and other unusual performances are efficiently done with it. These machines are built in various sizes, having a capacity of from a half inch down to the thinnest gages of tin. Cost of cutting is materially reduced by its use. Prices and full descriptions of all makes of these machines will be furnished upon inquiry to the Lennox Throatless Shears Company, Marshalltown, Iowa.



Throatless Shears, made by the Lennox Throatless Shear Company, Marshalltown, Iowa.

NOTES AND QUERIES.

Sheet Aluminum.

From H. Christensen Manufacturing Company, Fort Atkinson, Wisconsin.

Kindly let us know where we can buy sheet aluminum.

Ans.—This can be purchased from the Metal Products Company, 100 South Jefferson Street, Chicago, Illinois.

Aluminum Solder.

From John F. Cartwright, 326 Main Street, Bowling Green, Kentucky.

Please tell me who makes a good aluminum solder. Is there a formula for one?

Ans.—A good aluminum solder may be obtained from the L. B. Allen Company, Incorporated, 4555 North Lincoln Street, Chicago; and the Victory Aluminum Solder Company, 3334 Chicago Avenue, Chicago. The following are good formulas for aluminum solder: (1) For sheet aluminum an iron tin solder may be used with a flux composed of resin, neutral chloride of zinc, and grease. The metal should not be cleaned or scraped unless it is absolutely necessary to do so, in which case alcohol or essence of turpentine should be used for the purpose. For 5 per cent aluminum bronze tin, solder may be employed, but this is not possible with the 10 per cent alloy, in which case a preliminary plating of copper is recommended. If it is difficult to dip the ends to be plated directly in the solution pieces of blotting paper soaked in a solution of $CuSO_4$ may be laid on them and a current passed. The flux mentioned above may be used.

(2) A good aluminum solder is made of zinc, aluminum and copper, in the proportion of 90, 6 and 4.

(3) The composition of solders for aluminum that are generally used is as follows: 1—80 parts zinc, 12 parts aluminum, 8 parts copper. 2—88 parts zinc, 7 parts aluminum, 5 parts copper. 3—94 parts zinc, 4 parts aluminum, 2 parts copper. 4—90 parts zinc, 6 parts aluminum, 4 parts copper. 5—85 parts zinc, 9 parts aluminum, 6 parts copper. First prepare an aluminum copper alloy which is to be mixed with the requisite amount of zinc. Melt the copper and then gradually introduce into same the aluminum, divided into 3 or 4 portions; make a perfect mixture by stirring. After the last of the aluminum has been put in, throw in the zinc and with it some fat or resin, then stir the mass rapidly and directly remove the crucible from the fire and pour the alloy into the iron molds, which have been rubbed with benzine or cold tar oil.

Steel Stove Trucks.

From the McLendon Hardware Company, Waco, Texas.

Can you tell us who makes steel stove display trucks?

Ans.—Arcade Manufacturing Company, Freeport, Iowa; The Bassick Company, Division Universal Caster and Foundry Works, Bridgeport, Connecticut; and Kilbourne and Jacobs Manufacturing Company, Columbus, Ohio.

Strap Hinges.

From H. Welsch Company, El Paso, Texas.

Will you tell us who manufactures strap hinges 3" to 6"?

Ans.—C. Hager and Sons Hinge Manufacturing Company, St. Louis, Missouri; Oliver Iron and Steel Company, Pittsburgh, Pennsylvania; Stanley Works, New Britain, Connecticut; and H. Zimmerman Company, Fremont, Ohio.

Copper Flashing Hooks.

From John J. Beard, Lexington, Kentucky.

I would like to know where to get copper flashing hooks.

Ans.—These can be obtained from the Berger Brothers Company, 229-231 Arch Street, Philadelphia, Pennsylvania.

Cast Iron Scuppers.

From John J. Beard, Lexington, Kentucky.

Where can I get cast iron scuppers?

Ans.—Electric Welding Company, Benedum Tree Building, Pittsburgh, Pennsylvania; and Watertite Drain and Scupper Company, 351 Lexington Avenue, New York City.

Eden Washing Machine.

From M. E. Southwick, Moville, Iowa.

Kindly inform me who makes the Eden Washing Machine.

Ans.—This is made by the Brokaw-Eden Manufacturing Company, Alton, Illinois.

Royal Banner Steel Range.

From Charles Rabe, Blue Earth, Minnesota.

Would you please tell me who makes the Royal Banner Steel Range?

Ans.—The manufacturers are the Bostick Stove Company, Lapeer, Michigan.

Cheese Factory Supplies.

From Karl R. Kokborg, Richland Center, Wisconsin.

Kindly put me in touch with some concerns handling cheese factory supplies.

Ans.—Creamery Package Manufacturing Company, 61 West Kinzie Street; A. H. Barber Creamery Supply Company, 306 West Austin Avenue; and Cresco Creamery Supply Company, 50 Kinzie Street: all of Chicago.

Razor Blades Sharpened.

From Robb and Goelser, Sharon, Wisconsin.

Where can we send our safety razor blades to be sharpened?

Ans.—Kraut and Dohnal, 325 South Clark Street; and James G. Barry Company, 36 South Clark Street; both of Chicago.

Use Tinners' Tools.

From V. M. Russell, State Normal School, Platteville, Wisconsin.

Please tell us who sells used tinners' tools.

Ans.—Frederick J. Knoedler, 68 North Second Street, Philadelphia, Pennsylvania; Charles Molitor Machinery Company, 118 South Clinton Street, Chicago; and H. Weiss and Company, 20 Cliff Street, New York City.

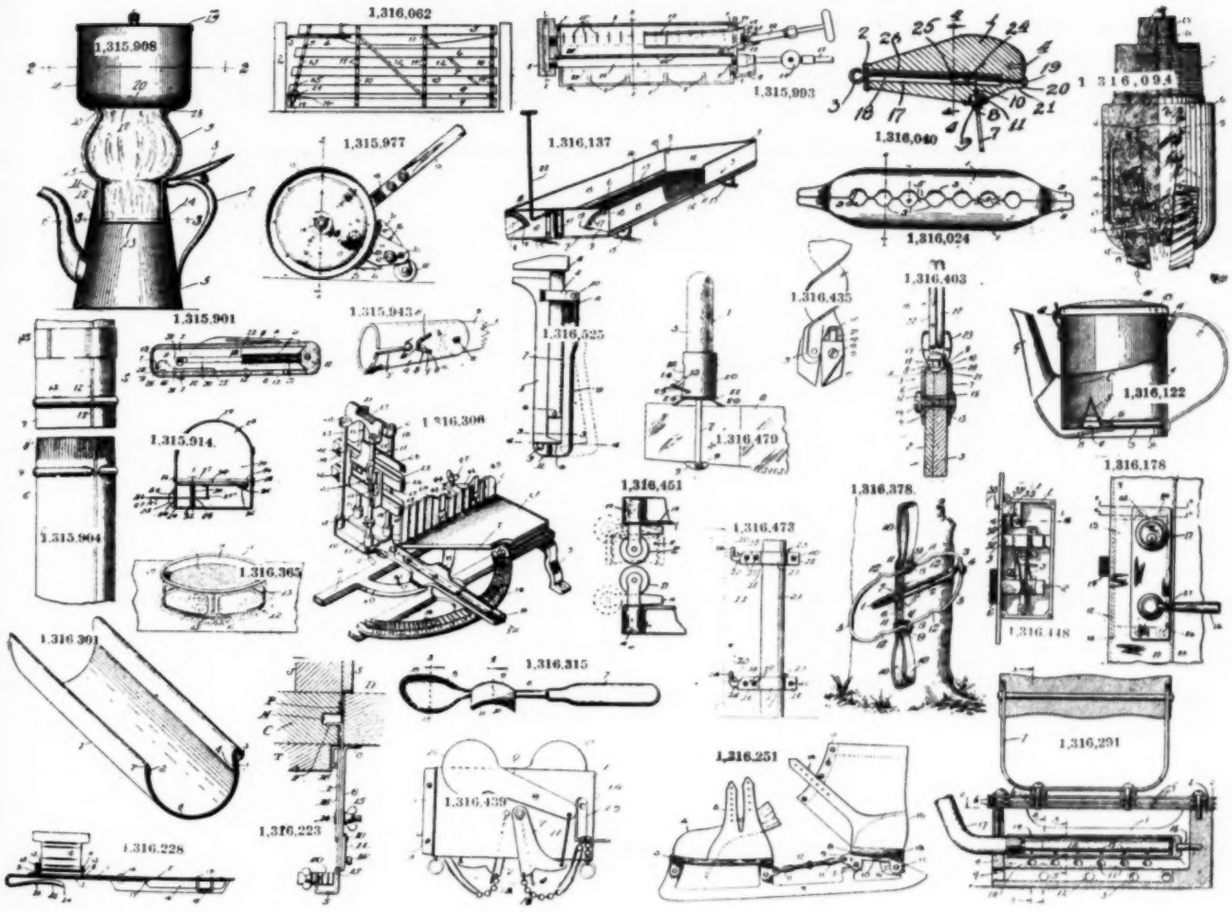
ITEMS.

The Dry Dock Sheet Metal Works, 140 West Forty-second Street, New York City, has acquired a site on which it will erect a plant.

The L. Lawrence and Company, 292 Halsey Street, Newark, New Jersey, coppersmithing works, has plans for a one-story plant, 48 x 150 feet, to cost about $20,000.

The Lake Erie Steel and Wire Company, Cleveland, Ohio, which recently increased its capital from $75,000 to $225,000, plans to enlarge its plant by an addition, 50 x 180 feet, and to install additional equipment for the manufacture of cold drawn steel.

NEW PATENTS.



1,315,901. Knife. William H. Ballinger, Covington, Ky. Filed June 2, 1917. Serial No. 172,457. Renewed July 3, 1919.

1,315,904. Stovepipe. Charles A. Bever, Kopiah, Wash. Filed June 13, 1916.

1,315,908. Percolator. Benjamin F. Childress, Lynchburg, Va. Filed Sept. 10, 1918.

1,315,914. Mail-Box. Edward Dubbs, Mayflower, Ark., assignor of one-half to J. D. Dunaway and P. P. Tally, Conway, Ark. Filed June 23, 1917.

1,315,943. Handle for Picks and Other Tools. Benjamin Brockbank, Ramsay, Mich. Filed Feb. 26, 1919.

1,315,977. Lawn-Mower. Finis H. McLain, University Place, Nebr. Filed Apr. 11, 1918.

1,315,993. Kerosene-Burner. Charles C. Shepardson, Los Angeles, Calif. Filed Aug. 11, 1919.

1,316,024. Swivel-Jaws for Muskrat-Traps. Joseph Froelich, Sawyer, Wis. Filed July 25, 1919.

1,316,040. Fish-Bait. William J. Jamison, Chicago, Ill. Filed Jan. 29, 1919.

1,316,062. Gate-Hinge. Alvin V. Rowe, Galesburg, Ill. Filed May 3, 1918.

1,316,094. Rotary Boring-Drill. Howard R. Hughes, Houston, Tex. Filed Mar. 30, 1918.

1,316,122. Can-Server. Carl Vall, Rochester, N. Y. Filed Aug. 4, 1919.

1,316,137. Ash-Sifter. Patrick Joseph Brennan, Tuxedo Park, N. Y. Filed June 5, 1916. Serial No. 101,860. Renewed Mar. 8, 1919.

1,316,178. Lock. Albert A. Page, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn. Filed May 3, 1916.

1,316,223. Door-Securer. Theodore Danner, Milton, Ore. Filed Sept. 30, 1918.

1,316,228. Razor-Stropper. Ora L. Gambrel, Denver, Colo. Filed Jan. 16, 1918.

1,316,251. Skate. Hugh G. Macwilliam, New Rochelle, N. Y. Filed Apr. 15, 1919.

1,316,291. Sadiron. William C. Fischer, New York, N. Y. Filed Aug. 27, 1918.

1,316,301. Gutter. Frederick J. Hacker, Waterloo, Iowa. Filed May 20, 1919.

1,316,306. Miter-Box. Alphonse Iltis, Rochester, N. Y. Filed Apr. 21, 1919.

1,316,315. Implement for Use in Removing the Contents of Eggs. Jesse B. Mars, Chicago, Ill. Filed May 15, 1919.

1,316,365. Pie-Baker. Mary A. Jackson and Lulu P. Jackson, Los Angeles, Calif. Filed Dec. 16, 1918.

1,316,378. Animal-Trap. Oscar G. Meredith, East Goshen township, Chester county, Pa., assignor of one-half to Harry F. Taylor, West Chester, Pa. Filed Dec. 9, 1918.

1,316,403. Swivel-Frame for Razor-Strops. David S. Williams, Portland, Ore. Filed Dec. 27, 1918.

1,316,435. Boring-Tool. Frederick Esa, Fairview, Mont. Filed Mar. 8, 1918.

1,316,439. Draft-Regulating Damper. John R. Gillson, St. John, N. D. Filed Apr. 14, 1917.

1,316,448. Secret-Door Latch and Lock. Amasa M. Johnson, New York, N. Y. Filed Mar. 2, 1917. Renewed May 20, 1919.

1,316,451. Metal-Working Tool. Homer R. Kennedy, Los Angeles, Calif., assignor to Gussie M. Kennedy, Los Angeles, Calif. Filed Mar. 29, 1919.

1,316,473. Gate-Hinge. Fred Adeling, Ficklin, Ill. Filed May 24, 1919.

1,316,479. Saw-Handle. Jeff D. Goss, Lake City, Fla. Filed Apr. 3, 1919.

1,316,525. Tool. James W. Webb, Pittsburgh, Pa. Filed May 31, 1919.

WEEKLY REPORT OF TRADE AND THE MARKETS

STEEL PRODUCERS ARE ENCOURAGED BY FAVORABLE TURN OF AFFAIRS.

Steel producers are greatly encouraged by strike developments in their favor. The situation from now on bids fair to drag to a slow conclusion without any likelihood of the unions developing sufficient strength to force the operators to terms. The failure of the unions to close the mills of the leading independent gave strong backing to this belief. Unprejudiced observers, familiar with conditions in the industry, look for victory for the mill owners as a certainty, with slight concessions made to the workers at the end. But on the main issue, recognition of the unions, the companies have won the fight along the line.

Consumers of steel products have been on the producers' side ever since the beginning of the conflict and are still doing all they can to further the cause of the steel companies. Automobile manufacturers are in the market on a large scale for cold finished steel products and producers of cold rolled strip steel are also meeting with a strong demand, as well as heavy specifications against old contracts.

In the Chicago territory, consumers of steel bars are standing behind the strike-bound mills and seem to realize that the present battle is being fought for the good of industry in general, expressing a willingness to undergo whatever inconvenience may result from lack of material in order to assist in settling the dispute correctly and once for all. Much voluntary encouragement is being expressed to the producers and no pressure is being brought to bear on the mills to bring about greater production by a surrender to labor demands. Most producers are refusing to book new business and are accepting specifications on existing contracts subject to such delay as may result from the present strike.

STEEL.

Despite the inroads made by the strike, the steel industry is in a pretty healthy condition and it is reported that plants making pipe line and tubular goods for the oil field trade are sold up so far ahead that no new business is being accepted. Wire products are in pretty fair shape inasmuch as most of the fall deliveries of nails and other wire products had been made before the strike started and a majority of the mills were well fixed in regard to surplus stocks at the mills to handle subsequent business. Finishing steel plants are operating on a larger scale than those plants which turn out the unfinished products and consequently supplies are being decreased. In fact, should the strike continue for a month it is probable that some of the rolling mills may be forced to shut down because of lack of supplies, but that is too far in the future for the producers to start worrying now.

COPPER.

The situation in the copper market is unchanged and the depression in the metal, caused by heavy offerings of resale copper continues. Japan, which was a heavy buyer of copper three months ago at lower prices, bought apparently more than it can use, and it was reported that some of this metal will also be offered for resale.

Brassmakers are buying little copper at present, as the Government's offerings of about 150,000,000 pounds of brass have to be digested. The export demand is confined mostly to Holland, Sweden and Italy, and represents a fair tonnage, totaling up so far this month to 16,677 tons, but it is below expectations, as the demand from the European central powers is still lacking and will probably not develop until the foreign exchange is more favorable.

A week ago sentiment in the trade was growing more hopeful every day. Manufacturers of copper wire were receiving many new orders from Europe, South America and other foreign countries and the export demand for brass products was showing a steady gain. There also was some improvement in the domestic demand. These were considered as indicators pointing to the resumption of constructive operations all over the world.

To assume that this tendency on the part of foreign peoples to turn their attention again to industrial upbuilding and expansion will be checked by the efforts of a minority of the steel mill employes in this country to coerce the remainder into joining the union is the height of absurdity. The world already is emerging from that stage in which it trembled at each successive threat of a strike.

Copper sheets in Chicago remain at the base price of 33½ cents.

TIN.

A little firmer tone was noted in the tin market at the close of the past week. The firm tendency in spite of the quite heavy arrivals lately was attributed to the fact that most of the incoming shipments are under contract and do not enter the spot market and that little free tin is available for distribution.

The United States Geological Survey says tin is one of the few highly useful metals that are practically not produced in the United States proper. The output of tin from domestic ore in 1918 was only 68 tons, nearly all of it obtained from placers in Alaska.

The tin imported in 1918, as metals and in concentrates, amounted to 82,854 short tons, the largest quantity yet brought into the country in any one year.

Deposits of tin ore are found in California, Virginia, North Carolina, South Carolina, South Dakota, Washington, Nevada and New Mexico, but the ore at some

of them contains so little tin that it can not be mined with profit.

Tin concentrate from Bolivia was handled at four tin-smelting plants in this country, which produced from it over 10,000 tons of metallic tin.

A report on tin in 1918, by Adolph Knopf, has just been published by the United States Geological Survey, Department of the Interior, as a chapter of Mineral Resources for 1918 and can be obtained free of charge on application to the Director of the Survey at Washington.

LEAD.

Due to a slow consuming demand the liquidation of the outside holdings of lead is not making much headway, and the offerings on the market continue in fairly large volume.

Lead.—The lead market is not directly involved in the steel strike situation. But so thoroughly interdependent are all industries today that a serious disturbance in the operation of one is felt in all. The steel strike may be compared to the dropping of a stone in a quiet pool of water. The ripples spreading in ever-widening circles throughout the entire pool. So it is not surprising that the lead market is influenced to an appreciable extent by the steel strike. The dulness of the present conditions is thus partially explained.

SOLDER.

There have been no changes in the prices of solder. The quotations ruling in the Chicago market are as follows: Warranted, 50-50, per pound, 34.25 cents; Commercial, 45-55, per pound, 30.25 cents; Plumbers', per pound, 28.15 cents.

ZINC.

A decided unwillingness is shown by zinc producers to commit themselves into the future at the present scale of prices, and they are passing up the only business in sight, which consists of November, December and January shipments. There is zinc for sale for prompt and October, but hardly any demand for these early shipments, so the market is almost at a standstill.

The decline in the price of ore to $40 to $42 in the Joplin district fully offsets the decline in the metal, and should permit the smelters to figure a profit on a 7 cents market. Ore has declined because the smelters have been indifferent about buying and furthermore it is understood that there has been some cheap Mexican ore, which smelters have taken for use on export business. Consuming business is about as dull as could be imagined and for almost two weeks not a word has been heard from any of the large brass or steel interests.

The price of zinc in slabs continues unchanged in the Chicago market at 8 cents per pound.

TIN PLATE.

According to advices from Pittsburgh, the effect of the steel strike upon the market for tin plate has been sharply to stimulate the demand for stock plate and some manufacturers report no difficulty in making sales of this grade at $7 per base box, Pittsburgh. Comparatively few plants have suffered much as a result of the strike, several of the independents having kept going owing to the fact that they were working under agreements with the Amalgamated Association, whose members are not subject to the strike call. These agreements, however, were not sufficient to enable some plants to keep in operation. The leading interest, having a number of its works in isolated places, did not suffer much. The Cambridge works, Cambridge, Ohio, and the Chester works, Chester, West Virginia, have been running full throughout the strike, and the interruptions at the Farrell works, at the New Castle works and the Shenango works were short-lived, all of these plants having had steady accession to working forces after the first day of the strike and today the Shenango works are running 90 per cent full.

In the Chicago markets, first quality bright tin plates IC 14 x 20 are quoted at $13.20 per box of 112 sheets and other gages and sizes at corresponding prices.

SHEETS.

An increase in production over last week is the notable feature in the operation of the sheet mills of the country, with the exception of the mills in the Youngstown, Ohio, district.

OLD METALS.

Notwithstanding the partial reduction of steel mill operations and the stoppage of shipments of scrap used in open hearth furnaces, there has been an increased demand for rolling mill grades and for rerolling rails, as plants producing bar iron and hard steel bars have not been affected. On the contrary, extra demand for these products has increased the operations of these mills and scrap is in demand. Foundries are also taking all the cast scrap it is possible to obtain because of interference with pig iron deliveries by the strike.

Wholesale quotations in the Chicago district which may be considered nominal are as follows: Old steel axles, $26.00 to $27.00; old iron axles, $28.50 to $29.50; steel springs, $20.50 to $21.50; No. 1 wrought iron, $17.00 to $18.50; No. 1 cast, $23.00 to $24.00, all net tons. Prices for non-ferrous metals are as follows, per pound: Light copper, 14 cents; light brass, 8½ cents; lead, 4¼ cents; zinc, 4¼ cents; cast aluminum, 24 cents.

PIG IRON.

The pig iron market remains quiet under the influence of the steel strike. So far not many merchant furnaces have gone out of blast, but in the steel works quite a number were forced to close. Inquiry continues fair, especially for nearby iron, which is getting into scant supply. There are also some new inquiries noted for export to Japan, but negotiations are proceeding very slowly, as furnaces are not overanxious to close commitments, not knowing if they will be able to operate. The uncertain outlook in regard to cost for raw material and labor during the coming year is also restricting sales for the futures.

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS.

PIG IRON.

Basic	$25 50
Northern Fdy., No. 2	26 75
Southern Fdy., No. 2	30 00
Lake Sup. Charcoal	31 45
Malleable	27 25

FIRST QUALITY BRIGHT TIN PLATES.

			Per box
IC	14x20	112 sheets	$13 20
IX	14x20		14 63
IXX	14x20		16 30
IXXX	14x20		17 50
IXXXX	14x20		18 70
IC	20x28		26 40
IX	20x28		29 25
IXX	20x28		32 60
IXXX	20x28		35 00
IXXXX	20x28		37 40

COKE PLATES.

Cokes, 180 lbs		20x28	$16 00
Cokes, 200 lbs		20x28	16 20
Cokes, 214 lbs	IC	20x28	16 60
Cokes, 270 lbs	IX	20x28	18 50

BLUE ANNEALED SHEETS.

No. 10 per 100 lbs.	$4 57
No. 12 per 100 lbs.	4 62
No. 14 per 100 lbs.	4 67
No. 16 per 100 lbs.	4 77

ONE PASS COLD ROLLED BLACK.

No. 18-20 per 100 lbs.	$5 42
No. 22-24 per 100 lbs.	5 47
No. 26 per 100 lbs.	5 52
No. 27 per 100 lbs.	5 57
No. 28 per 100 lbs.	5 62
No. 29 per 100 lbs.	5 67

GALVANIZED.

No. 16 per 100 lbs.	$6 22
No. 18-20 per 100 lbs.	6 37
No. 22-24 per 100 lbs.	6 52
No. 26 per 100 lbs.	6 67
No. 27 per 100 lbs.	6 82
No. 28 per 100 lbs.	6 97
No. 30 per 100 lbs.	7 47

WELLSVILLE POLISHED STEEL.

No. 18-20 per 100 lbs.	$7 10
No. 22-24 per 100 lbs.	7 20
No. 26 per 100 lbs.	7 30
No. 27 per 100 lbs.	7 40
No. 28 per 100 lbs.	7 50

KEYSTONE HAMMERED POLISHED STEEL.

28-26 per 100 lbs.	$9 85
24-22 per 100 lbs.	9 35

BAR SOLDER.

Warranted, 50-50	per lb.	34.25
Commercial, 45-55	"	30.25
Plumbers'	"	28.15

ZINC.

In slabs 11

SHEET ZINC.

Cask lots	13c
Less than cask lots	13½ to 13½c

COPPER.

Copper Sheet, base 33½c

LEAD.

American Pig	$6 50
Bar	7 00

Sheet.

Full coils	per 100 lbs.	$8 75
Cut coils	per 100 lbs.	9 00

TIN.

Pig tin	60
Bar tin	61

HARDWARE.

ADZES.

Carpenters'.

Plumbs ..... Net

Coopers'.

Barton's ..... Net
White's ..... Net

Railroad.

Plumbs ..... Net

AMMUNITION.

Peters Cartridges.

Semi-Smokeless ..... Less 10-7½%
Smokeless ..... Less 10-7½%

Shells, Loaded, Peters.

Loaded with Black Powder. Less 15%
Loaded with Smokeless Powder, medium grades ..... Less 15%
Loaded with Smokeless Powder, high grade ..... Less 15%

Winchester.

Smokeless Repeater Grade .. 10&5%
Smokeless Leader Grade .... 10&5%
Black Powder ..... 10&5%

U. M. C.

Nitro Club ..... 10&5%
Arrow ..... 10&5%
New Club ..... 10&5%

Gun Wads—per 1000.

Winchester	7-8 gauge	$2 25
"	9-10 gauge	1 94
"	11-28 gauge	1 63

Powder.		Each
DuPont's Sporting,	kegs	$11 25
" "	½ kegs	5 90
" "	¼ kegs	3 10
DuPont's Canisters,	1-lb.	56
" "	½-lb.	32
" "	¼ lb.	22
" Smokeless,	drums	43 50
" "	kegs	22 00
" "	½ kegs	11 25
" "	¼-kegs	5 75
" "	canisters	1 00
L. & R. Orange, Extra Sporting	kegs	11 25
L. & R. Orange, Extra Sporting	½-kegs	5 90
L. & R. Orange, Extra Sporting	¼-kegs	3 10
L. & R. Orange, Extra Sporting	1 lb. canisters	56
L. & R. Orange, Extra Sporting	½ lb. canisters	32
L. & R. Orange, Extra Sporting	¼-lb. canisters	22
Hercules "E.C." and "Infallible"	50 can drums	43 50
Hercules "E. C.,"	kegs	22 50
Hercules "E. C.,"	½-kegs	11 25
Hercules "Infallible,"	25 can drums	22 00
Hercules "Infallible,"	10 can drums	9 00
Hercules "E. C.,"	¼-kegs	5 75
Hercules "E.C." and "Infallible"	canisters	1 00
Hercules W. A. .30 Cal. Rifle,	canisters	1 25
Hercules Lightning Rifle,	canisters	1 25
Hercules Sharpshooter Rifle,	canisters	1 25
Hercules Unique Rifle,	canisters	1 50
Hercules Bullseye Revolver,	canisters	1 00

ANVILS.

Trenton, 70 to 80 lbs. ..... 9½c per lb.
Trenton, 81 to 150 lbs. ..... 9½c per lb.

ASBESTOS.

Board and Paper, up to 1/16" 17c per lb.
Thicker ..... 18c per lb.

Broad.

Plumbs, West, Pat.		List
" Can. Pat.		$69 00
" Firemen's (handled),	per doz.	21 00

Single Bitted (without handles).

	Prices
Warren Silver Steel	on application
Warren Blue Finished	"
Matchless Red Pole	$11 50

Double Bitted (without handles).

Warren's Natl. Blue, 3½ to 4½ lb. ..... Prices on application

The above prices on axes of 3 to 4 lbs. are the base prices.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$5 00	6 50	7 50	9 00

BALANCES, SPRING.

Pelouze 20%

BARS, CROW.

Pinch or Wedge Point, per cwt. ... $8 50

BASKETS.

Clothes.

Small Willow	per doz.	15 00
Medium Willow	"	17 00
Large Willow	"	20 00

Galvanized Steel.	½ bu.	1 bu.	1½ bu.
Per doz.	$11 50	$17 00	$22 00

AUGERS

Boring Machine 60%
Irwin's 25%
Carpenter's Nut 30%

Hollow.

Bonney's	per	dos.	30 00
Stearns, No. 0	"		43 25
" No. 1	"		43 25
" No. 2	"		43 25
" No. 3	"		42 00
" No. 4	"		10 50
" No. 30	"		45 00
" No. 33	"		45 00
" No. 44	"		17 00
" No. 50	"		48 00
" No. 55	"		45 00
" No. 60	"		42 00

Post Hole.

Iwan's Post Hole and Well 25%
Vaughan's, 4 to 9-in. .. per doz. $13 00

Ship.

Ford's, with or without screw, Net list

AWLS.

Brad.

No. 3 Handled	per doz.	$0 65
No. 1050 Handled	"	1 40
Shouldered, assorted 1 to 4,	per gro.	4 00
Patent asst'd. 1 to 4	"	85

Harness.

Common	"	1 05
Patent	"	1 00

Peg.

Shouldered	"	1 60
Patented	"	75

Scratch.

No. IS, socket hand'ld. per doz. 2 50
No. 344 Goodell-Pratt, List, less 35-40%
No. 7 Stanley " 2 25

AXES.

Boys' Handled.

Niagara 12 50

BEATERS.

Carpet.	Per doz.
No. 7 Tinned Spring Wire	$1 10
No. 8 Spring Wire coppered	1 50
No. 9 Preston	1 75

Egg.	Per doz.
No. 50 Imp. Dover	$1 10
No. 102 " " tinned	1 35
No. 150 " " hotel	2 10
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

Hand.	8	9	10	12
Per doz.	$11 50	13 00	14 75	18 00

Moulders'.

12-inch ..... Per doz. 20 00

BELLS.

Call.

3-inch Nickeled Rotary Bell, Bronzed base ..... per doz. $5 50

Cow.

Kentucky 30%

Door.	Per dos.
New Departure Automatic	$ 7 50
Rotary.	
3 -in. Old Copper Bell	6 00
3 -in. Old Copper Bell, fancy	8 00
3 -in. Nickeled Steel Bell	6 00
3½-in. Nickeled Steel Bell	6 50

Hand.

Hand Bells, polished	15%
White Metal	15%
Nickel Plated	10%
Swiss	15%
Silver Chime	10%

Miscellaneous.

Church and School, steel alloys				30%
Farm, lbs.	40	50	75	100
Each	$3 00	3 75	5 50	7 25

BEVELS, TEE.

Stanley's rosewood handle, new list ..... Nets
Stanley's iron handle ..... Nets

BINDING CLOTH.

Zinced 55%
Brass 40%
Brass, plated 60%

BITS.

Auger.

Jennings Pattern	20%
Ford Car	List plus 5%
Ford's Ship	" " "
Irwin	35%
Russell Jennings	15%
Clark's Expansive	33⅓%
Steer's " Small list, $22 00	5%
" " Large " $26 00	5%
Irwin Car	35%
Ford's Ship Auger pattern Car	List plus 5%

Center 10%

Countersink.

No. 18 Wheeler's	per	dos.	$2 25
No. 20 "	"		3 00
American Snailhead	"		1 75
" Rose "	"		2 00
" Flat	"		1 40
Mahew's Flat	"		1 60
" Snail	"		1 90

Dowel.

Russell Jennings 15%

Gimlet.

Standard Double Cut. Doz. $1 10—$1 60
Countersink ..... Doz. 1 80

Reamer.

Standard Square	Doz.	2 50
American Octagon	"	2 50

Screw Driver.

No. 1 Common	"	1 40
No. 26 Stanley	"	1 75